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Earnings of Couples with High and Low Levels of Education, 1980-2000

by René Morissette and Anick Johnson

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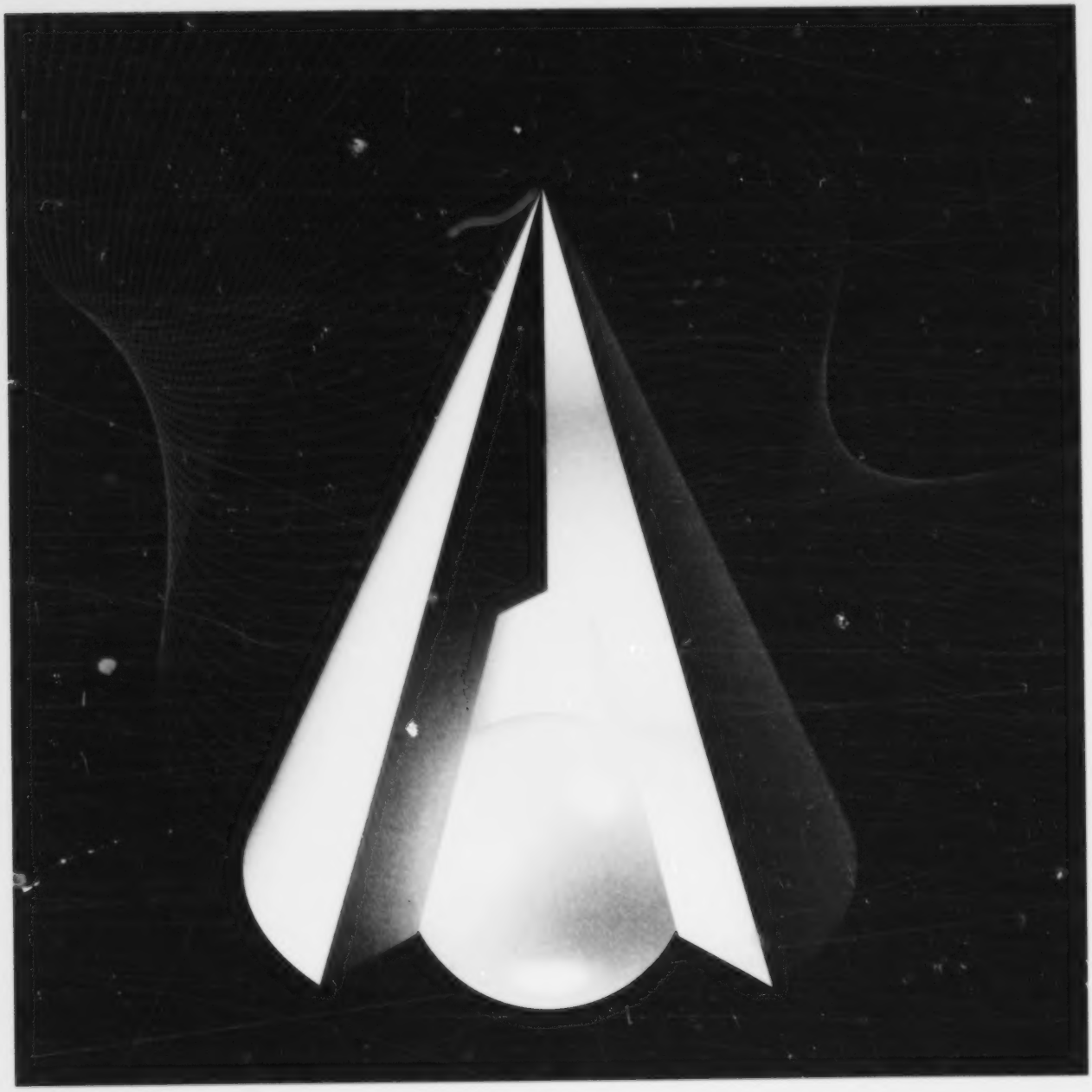

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Earnings of Couples with High and Low Levels of Education, 1980-2000

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ABSTRACT

Using Census data covering the 1980-2000 period, we assemble a set of facts regarding the performance of low and high educated couples in the Canadian labour market over the last two decades. Our main findings are the following.

First, women's earnings growth between 1980 and 2000 did not always offset the earnings declines of low-educated males. Second, women's earnings growth has not been the highest among couples where males suffered the greatest earnings declines. Third, women in the least educated couples increased their hours of work and their pay rates to a lesser extent than those in the most educated couples. Fourth, the earnings gap between low and high educated couples has widened over the period. Fifth, earnings of couples have followed diverging trends even within given age and educational categories. Sixth, at most half of the *groups* of Canadian-born couples—defined jointly in terms of the age of men and the educational attainment of partners—who suffered earnings declines fully offset these declines through other channels. Recent immigrant couples were less successful: they generally experienced a substantial drop in their total income. Seventh, the aging of couples and the increase in their educational attainment have modified substantially their earnings distribution. They prevented an increase in the number of Canadian-born couples with fairly low employment income and accelerated the growth of Canadian-born couples earning more than $100,000 per year. Eighth, the last two decades have witnessed the emergence of couples with two university graduates, a group unlikely to be vulnerable to negative income shocks. Compared to their less educated counterparts, they enjoyed a triple advantage in terms of economic security: a) they are more likely to receive high labour market income, thereby allowing them the possibility to build substantial savings for precautionary motives (e.g., to buffer the income losses resulting from layoffs), b) they are less likely to be permanently laid-off and, c) in the event of a layoff, they can rely more often on a significant second earner to moderate the variability of family earnings.

Keywords: Earnings; Education; Family income inequality; Precariousness; Vulnerable workers.

I. Introduction

Since the early 1990s, several studies have documented changes in the earnings structure in Canada.[1] Recently, Morissette, Ostrovsky and Picot (2004) have shown that real median weekly earnings of young male high school graduates employed in the private sector fell roughly 20% between 1980 and 2000. In sharp contrast, those of female university graduates employed in the private sector rose at least 20% during the same period.

While much continues to be written about the evolution of earnings of *individuals* with various education levels (e.g., Card and Lemieux, 2001; Burbidge, Magee and Robb, 2002; Beaudry and Green, 2003), much less is known about the evolution of the earnings of low and high educated *couples* over the last two decades. This is surprising in light of the fact that women's growing labour force participation is a well documented phenomenon.

The analysis of the evolution of couples' earnings across education levels is important for several reasons. First, it allows us to assess the extent to which low-educated males have avoided a decline in living standards[2] because of the growing contribution of their spouse to their *couples*' employment income. Previous analyses of contingent work or job precariousness (e.g., Krahn, 1991 and 1995; Grenon and Chun, 1997; Schellenberg and Clarke, 1996; Vosko et al., 2003) have generally been conducted at the individual level and thus, have not considered this possibility. Doing so is crucial since some low-educated males who are considered as vulnerable workers[3]—due to their employment in low-paid, part-time or temporary jobs—may well live in couples with substantial employment income.

Second, such analysis allows us to investigate whether women's earnings grew the most among couples where men experienced the greatest earnings declines. Since women increase their labour supply in response to their husband's job loss (Stephens, 2002), it is conceivable that they also adjust their labour supply to offset the long-term earnings declines faced by their spouse. Since earnings of low-educated young men evolved in a less favourable manner than those of their better educated counterparts over the last two decades (Morissette, Ostrovsky and Picot, 2004), one would expect young women's growth in earnings to be the greatest among young couples with low-educated males. Whether or not this happened is an important issue since greater earnings growth among women living with young low-educated men would tend to limit the growth of the earnings gap between low and high educated young couples.

Third, such analysis is a prerequisite for a thorough understanding of the growth in family income inequality observed in the 1990s in Canada and documented by Frenette, Green and Picot (2004). It leads us to assess not only whether the earnings gap between better and less educated

1. A non-exhaustive list includes: Freeman and Needels, 1993; Morissette, Myles and Picot, 1994; Bar-Or, Burbidge, Magee and Robb, 1995; Beach and Slotsve, 1996; Picot, 1998; Murphy, Riddell and Romer, 1998; Beaudry and Green, 2000; Card and Lemieux, 2001; Burbidge, Magee and Robb, 2002.

2. Compared to workers of similar age in the 1980s.

3. Saunders (2003) identifies various concepts of vulnerability in the labour market at the *individual* level. These include the absence of (or inability to access) statutory rights, the lack of access to non-statutory benefits (such as employer-sponsored pension plans, dental care or paid sick leave) or social security programs and the persistence of low earnings.

couples has risen over time, but also whether inequality has risen within these educational groups. For instance, of all young couples composed of two high school dropouts, those in the bottom third of the earnings distribution may well have experienced a more severe deterioration in their earnings than those in the top third of the distribution. We examine whether this is the case by quantifying the magnitude of the earnings declines/gains experienced by couples narrowly defined in terms of their age, educational attainment and their position in the *age/education-specific* distribution of couples' earnings. Previous Canadian studies of trends in family income inequality (Zyblock, 1996; Frenette, Green and Picot, 2004) have not performed this task. This is an important exercise given the well-known fact that much of the growth in earnings inequality at the individual level has occurred within given age and educational categories.

Analyzing changes in couples' earnings also raises the question of whether some of the couples who have received lower earnings in 2000 than their counterparts in the 1980s have succeeded in maintaining a reasonably similar level of income thanks to government transfers, a reduction in family size or growth in other forms of income. Since these economic and demographic factors are potentially important buffers of negative income shocks, we investigate the extent to which they have fully offset the long-term changes in the wage structure that have adversely affected the earnings of low-educated males.

Like the rest of the Canadian population, couples have become older and better educated over the last two decades. All else equal, these demographic changes should have tended to increase their employment income. They may also have substantially affected the distribution of couples' earnings. More precisely, the aging of couples and the increase in their educational attainment may have restricted the growth of the number of couples with fairly low employment income, thereby preventing a thickening of the bottom of the couples' earnings distribution. At the same time, these demographic changes may have substantially increased the number of couples with fairly high employment income, thereby causing a thickening of the top of the couples' earnings distribution. To what extent have changes in the age and education profile of couples altered the distribution of couples' earnings? We investigate this issue in our study.

Couples have also been increasingly relying on two earners to provide employment income. While this trend has put tremendous pressures on parents regarding work-family balance, it has also spread the risk of job loss across two earners, rather than concentrating it on a single earner. The effect is magnified in couples where the second earner receives a substantial share of the couple's earnings. Simply, some couples who have a significant second earner may still benefit from a substantial level of labour market income in the event of the main earner's job loss and thus, are less vulnerable to negative income shocks than others. What fraction of couples can rely on a significant second earner? Which couples, low or high educated, are most likely to be in this situation? How has the relative importance of couples with significant second earners evolved over the last two decades? Little attention has been devoted to answering these questions.

In sum, the goal of this paper is to assemble a set of stylized facts regarding the performance of low and high educated couples in the Canadian labour market over the last two decades. By doing so, we wish to highlight important patterns regarding workers' vulnerability (or lack thereof) in the labour market, women's role as a buffer of long-term earnings declines faced by some men, and family income inequality. Specifically, we wish to answer the following

questions. First, did women's earnings fully offset the declining earnings of low-educated men, thereby allowing low educated couples to avoid a drop in employment income? Second, did women's earnings grow more among couples with low-educated males than among those with highly educated ones? Third, if not, why? Fourth, has the earnings gap between low and high educated couples risen over time? Fifth, within given age and educational categories, have real earnings of couples followed diverging paths? Sixth, did couples who suffered earnings declines *fully* offset these declines through other channels such as government transfers, reductions in family size and other forms of income? Seventh, how has the changing age and education distribution of couples altered the distribution of couples' earnings? Eighth, which couples have a significant second earner, i.e., a partner who can provide substantial employment income if the main earner loses his/her job, and how has the profile of these couples changed over the last two decades?

The answers to these questions are the following.

1) Women's earnings did not always *fully* offset the earnings declines experienced by low-educated males during the 1980-2000 period. In general, they did so among prime-aged Canadian-born couples—those where men are aged 35 to 54—with high school or less. However, they did not do so among young Canadian-born couples with high school or less, among recent immigrant couples or among most Canadian-born couples with high school or less and who were located in the bottom third of the earnings distribution.[4]

2) In general, women's earnings did not increase the most among couples with low-educated men. In absolute terms, women's earnings actually grew *less* among couples with low-educated males than among those with highly educated ones. For instance, among prime-aged Canadian-born couples with high school or less, women's earnings rose at most $10,000, between 1980 and 2000. In contrast, earnings rose between $12,000 and $23,000 among prime-aged couples where men had a university degree. In relative terms, women's earnings *generally* grew less among couples with low-educated males than among those with highly educated ones.

3) Women's annual earnings grew less in the least educated couples in comparison to the most educated ones because women in the former group increased their hours of work to a lesser extent and experienced smaller increases in pay rates than those in the latter group.

4) The earnings gap between low and high educated couples has risen over time. Canadian-born couples with two university graduates saw their average annual earnings rise by 14% to 22% between 1980 and 2000. In contrast, those with high school or less generally saw their earnings decrease or stagnate.

5) Earnings of Canadian-born couples have also followed diverging paths *within* given age and educational categories. For instance, among those couples with men aged 45 to 54 with two high school dropouts (a group that represented 4% of all Canadian-born couples

4. Whenever used in conjunction with the terms "bottom third" and "top third", the term "the earnings distribution" will refer to the earnings distribution of couples in a *given age and educational category*.

with men aged 25 to 54 in 2000), average earnings fell 33% in the bottom third while rising 9% in the top third of the earnings distribution. Likewise, among Canadian-born couples with men aged 35 to 44 and both university graduates (a group that also represented 4% of all Canadian-born couples in 2000), employment income rose 6% in the bottom third, much less than the rate of 34% observed in the top third of the earnings distribution. As a result, couples' earnings inequality rose substantially *within* most age and educational groups.

6) At most half of the Canadian-born couples who suffered earnings declines fully offset these declines through other channels. Recent immigrant couples were less successful—they generally experienced a drop in their total income (adjusted for family size).

7) Aging and the growing educational attainment of couples have substantially modified the distribution of couples' earnings. These two factors virtually account for the whole increase in median and average employment income of Canadian-born couples between 1980 and 2000. These two factors also prevented an increase in the number of Canadian-born couples with fairly low employment income and accelerated the growth of Canadian-born couples earning more than $100,000 per year.

8) In 2000, highly educated couples were the most likely to have a significant second earner. They enjoyed a triple advantage—in terms of economic security—when compared to their less educated counterparts. First, they were more likely to receive high labour market income, thereby allowing them the possibility of building substantial savings for precautionary motives (e.g., to buffer possible income losses resulting from layoffs). Second, they were less likely to be laid-off. Third, in the event of a layoff, they could rely more often on a significant second earner to moderate the variability of family earnings. For these three reasons, highly educated couples were less vulnerable to negative income shocks than other couples. Between 1980 and 2000, the fraction of couples with a significant second earner has risen substantially, except among recent immigrant couples (where the increase observed was fairly small).

To answer these questions, we use Census data that covers the 1980-2000 period. We focus most of our analysis on Canadian-born couples. However, since recent immigrants have experienced growing difficulties in the Canadian labour market in the 1990s (Baker and Benjamin, 1994; Grant, 1999; Frenette and Morissette, 2003; Green and Worswick, 2003; Waslander, 2003), we also present separate results for Canadian-born couples, recent immigrant couples and other couples in some instances.

The article is set out as follows. We first present the data and concepts used in the study (Section II). We then examine how the educational profile of couples has changed during the 1980-2000 period (Section III). We document the earnings declines of low-educated males in Section IV. We answer the aforementioned questions in the next eight sections (Sections V-XI). A conclusion follows.

II. Data and concepts

The Census is the only available data source that combines information on men's and women's education level—as well as on their employment income—in a *consistent* way over the last two decades.[5] Therefore, it is the only data source that allows researchers to examine how low and high educated couples have performed in the Canadian labour market over the last two decades. We thus use Census data for the income reference years 1980, 1985, 1990, 1995 and 2000.[6] Our data is drawn from a 4% sample of the Canadian population.

The focus of the study is on two variables. The first variable of interest is annual earnings, which includes annual wages and salaries and net income from self-employment.[7] The second variable is pre-tax post-transfer income, which includes annual earnings, investment income, retirement income, other money income and government transfers. Both variables are expressed in 2001 constant dollars, using the Consumer Price Index as a deflator.

While we present some statistics for the years 1985, 1990 and 1995, our main concern is to identify long-term changes in couples' earnings that took place over last two decades. For this reason, most of the analysis compares the earnings and income of couples in 1980 to those of 2000. These two years are fairly comparable in terms of labour market conditions. While the unemployment rate of men aged 25 to 54 was, at 5.7%, slightly higher in 2000 than in 1980—where it stood at 5.1%—the unemployment rate of men and women aged 25 to 54 was equal to 5.7% in both years.[8]

We restrict our analysis to opposite-sex couples. We define Canadian-born couples (married or common-law) as those where both partners are born in Canada and recent immigrant couples as those where both partners came to Canada within the last five years. Specifically, recent immigrant couples in 1980 (2000) are those where both spouses arrived in Canada during the 1975-79 (1995-99) period.[9] Other couples—represented in roughly equal proportions by those composed of two older immigrants and those with one Canadian-born spouse and one immigrant spouse—are defined residually. In 2001, Canadian-born couples represented 72% of all couples.

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5 Studies using the Survey of Consumer Finances (e.g., Burbidge et al., 2002) or combining the Survey of Work History of 1981, the Labour Market Activity Survey of 1986-1990 and the Survey of Labour and Income Dynamics must rely on the Labour Force Survey education question, whose wording changed in 1989. As a result, these studies cannot construct a consistent time series of earnings for both high school graduates and university graduates over the last two decades.

6 To maintain historical comparability, we excluded non-permanent residents who were enumerated in the 1991 Census and since then, but not in previous Censuses.

7 For simplicity, we use the terms annual earnings and employment income interchangeably.

8. The overall unemployment rate was slightly lower in 2000 (6.8%) than in 1980 (7.5%). The unemployment rate of women aged 25 to 54 was 5.8% in 2000, down from 6.8% in 1980.

9. Since some of the immigrants who came to Canada in 1980 (2000) arrived in, say, the third or fourth quarter of the year, they were—contrary to those who arrived in 1975-79 (1995-99)—not at risk of working the whole year in Canada. Therefore, aggregating their earnings with their counterparts who arrived earlier would tend to bias downwards the earnings of recent immigrant couples. For this reason, for the income reference year 1980 (2000), we exclude immigrants who arrived in 1980 (2000) when we analyze recent immigrant couples.

The corresponding numbers for recent immigrant couples and other couples were 3% and 25%, respectively.

The educational attainment of individuals is defined using four categories: 1) no high school diploma, 2) high school diploma, 3) post-secondary education below bachelor's level[10] (henceforth, post-secondary education) and, 4) university degree (bachelor's level or more). In principle, this would allow us to study low and high educated couples using a 16-category classification. To keep the analysis tractable, we group the various cells into the following 10 categories:

1) Both man and woman have no high school diploma.
2) Man with high school diploma, woman with no high school diploma.
3) Woman with high school diploma, man with no high school diploma.
4) Both man and woman have a high school diploma.
5) Man with post-secondary education, woman with high school or less.
6) Woman with post-secondary education, man with high school or less.
7) Both man and woman have post-secondary education.
8) Man with a university degree, woman with post-secondary education or less.
9) Woman with a university degree, man with post-secondary education or less.
10) Both man and woman have a university degree.

In this study, couples in the educational categories 1 to 4 (defined above) will be referred to as couples with *high school or less*. Couples in the educational categories 5 to 7 will be referred to as couples with *at most* post-secondary education while those in the educational categories 8 to 10 will be referred to as couples with *at least* one university graduate. Couples in category 1 will be referred to as couples with *two* high school dropouts or couples with *no* high school diploma.

Since the focus of the study is on how low and high educated couples have performed in the Canadian labour market over the last two decades, we restrict our attention to couples where men are aged 25 to 54. We exclude couples where men are under 25 because many individuals in these couples have not yet completed their school-to-work transition. We also exclude couples where males are aged 55 and over to avoid confounding declines in men's earnings with declines in men's labour supply associated with early retirement.

Unless otherwise noted, our sample includes men and women with no earnings in a given year. As a result, it includes single-earner couples, dual-earner couples as well as those who receive no earnings in a given year. In 2001, roughly 15.7 million Canadians lived in 4.6 million census families consisting of opposite-sex couples in which men were aged 25 to 54 in 2001.[11] This represents 52% of Canada's population in 2001.

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10. Post-secondary education below a bachelor degree includes university certificates below bachelor's level as well as trades, vocational or apprenticeship certificates, college diplomas and other non-university education. The educational categories used in this paper are derived using the "highest level of schooling" variable in Census data.

11. The corresponding numbers were 13.9 million and 3.8 million in 1981.

Couples with men aged 25 to 34 and those with men aged 35 to 54 will be referred to as young couples and prime-aged couples, respectively.

III. The educational profile of couples, 1980-2000

Like the rest of the Canadian population, couples have become better educated over the last 20 years. The fraction of couples with no high school diploma (#1) fell markedly during the period. It went from 24% in 1980 to 10% in 2000 (Table 1). Meanwhile, the fraction of couples with two high school graduates (#4) rose roughly 5 percentage points. As a result, the proportion of couples with *high school or less* (#1 to #4) fell about 10 percentage points, dropping from 38% in 1980 to 28% in 2000. Hence, in spite of the massive growth in the educational attainment of Canadians over the last two decades, low educated couples—those with high school or less—still accounted for at least one-quarter of all couples in 2000.[12, 13]

At the other end of the spectrum, highly educated couples became more numerous. The proportion of couples with two university graduates (#10) more than doubled during the period, rising from 5% in 1980 to 12% in 2000. Thus, the least educated couples (#1) and the most educated couples (#10) each accounted for roughly one-tenth of all couples in 2000.

Other changes took place. Couples where women have a university degree and men are less educated (#9) were rarely observed in 1980 but accounted for about 8% of all couples in 2000. In contrast, couples where males have post-secondary education and women are less educated (#5) became less important.

The aforementioned qualitative patterns were observed both for Canadian-born couples and other couples. However, the educational profile of recent immigrant couples evolved quite differently. After rising moderately between 1980 and 1995, the proportion of recent immigrant couples with two university graduates virtually doubled between 1995 and 2000, rising from 19% to 37%. As a result, recent immigrant couples, who were already better educated than their Canadian-born counterparts in 1980, ended the 1980-2000 period with substantially higher levels of education.[14]

12. Of all couples with men aged 45 to 54, 31% had high school or less in 2000. The corresponding numbers are 28% and 24% for couples with men aged 35 to 44 and 25 to 34, respectively.

13. Of all men with high school or less, aged 25 to 54 and living in Canadian-born couples, only 7% were living with a woman having a university degree in 2000. The corresponding number for the women who have high school or less and who are living in these couples is 6%.

14. Of all recent immigrant couples, 19% had high school or less in 2000. The corresponding numbers for Canadian-born couples and other couples are 29% and 28%, respectively.

IV. The declining earnings of low-educated males, 1980-2000

Overall, average annual earnings of men living in opposite-sex couples followed a highly non-linear pattern during the 1980-2000 period. They fell 5% between 1980 and 1985, rose slightly between 1985 and 1990, fell 6% between 1990 and 1995 and then rose at least 10% between 1995 and 2000 (Appendix Table 1). As a result, they ended up being only 2% higher in 2000 than they were in 1980. Median annual earnings evolved less favourably, dropping 6% between 1980 and 2000.

The stagnation of male earnings found at the aggregate level masks widely diverging trends. While men living in Canadian-born couples saw their average employment income rise 5% during the period, those living in other couples experienced no growth. More important, those living in recent immigrant couples saw their average earnings drop fully 28%.[15, 16]

Among Canadian-born couples, earnings of low educated men and those of their better educated counterparts followed diverging paths. The labour market status of low-educated men deteriorated over the last two decades, especially among the younger ones. Young men in couples with *high school or less* (#1 to #4) saw their average annual earnings fall by 15% to 28% (Table 2). Older men in similar couples saw their annual earnings drop at least 9%. Moreover, older men with high school or less and whose partners have post-secondary education (#6) received 10% to 12% lower earnings in 2000 than their counterparts did twenty years earlier.

Men with high school or less have been far from the only ones to suffer earnings declines. Young men with postsecondary education living in couples with at most postsecondary education (#5 and #7) saw their annual earnings fall by 8% to 11%. Even male university graduates aged 45-54 living with a woman who had had lower education (#8) experienced a drop in annual earnings of 13%.

These declines in annual earnings were not simply due to potential declines in men's annual hours of work (due to unemployment or changes in labour force participation) between 1980 and 2000. For instance, real *weekly* earnings of young men working mainly full-time and living in couples with high school or less (#1 to #4) fell at least 13% between 1980 and 2000 (Appendix Table 2). Those of young men with postsecondary education living in couples with at most postsecondary education (#5 and #7) dropped at least 7%. Those of male university graduates aged 45-54 and whose partner had lower education (#8) fell 8%.

While the declines in weekly earnings of males with high school education or less are consistent with the findings of Morissette, Ostrovsky and Picot (2004) and thus come as no surprise, those

15. Growth rates in median annual earnings lead to the same ranking of couples. Men in Canadian-born couples and in other couples saw their median annual earnings fall 4% and 16%, respectively. Meanwhile, median annual earnings of men in recent immigrant couples fell 38%. The fact that median annual earnings grew substantially less than average annual earnings suggests that inequality in male earnings rose, partly due to substantial earnings growth at the top of the earnings distribution.

16. These findings highlight the need to conduct separate analyses for Canadian-born couples and recent immigrant couples. We do so in Sections X to XII, after conducting a detailed analysis of the earnings of Canadian-born couples to which we now turn our attention.

observed for better educated husbands have received very little attention in previous empirical work.

Most striking—and perhaps unknown—is the fact that, out of 30 groups of men defined jointly in terms of their age and the educational attainment of the couple, only one group [male university graduates aged 35-44, employed full-time and living with a woman who has a university degree (#10)] saw their average weekly earnings rise by at least 10% (Appendix Table 2).[17] The six groups of men whose weekly earnings did not decline experienced only marginal growth in earnings.[18] Other men—who accounted for fully 76% of all male partners in Canadian-born couples in 2001—either saw their weekly earnings fall or experienced no (statistically) significant drop in weekly wages.

Hence, several men in Canadian-born couples ended up having either similar or lower earnings in 2000 than their counterparts of similar age and education in 1980. In this context, it is worth investigating whether the growing labour force participation of their spouses has offset their declining fortunes.

V. Q1: Did women's earnings fully offset the declining earnings of low-educated men?

Whether women's growing labour force participation has offset—on a *cross-sectional basis*—the changes in the earnings structure that have adversely affected their partner's pay depends on two factors:

i) the magnitude of the earnings declines experienced by men (as compared to their counterparts in 1980), and
ii) the share of men in couples' employment income in 1980. The greater these two factors are, the greater women's earnings growth will have to be.[19]

Did women's earnings fully offset the declining earnings of low-educated men? The answer is: not always. Women's earnings growth did not prevent a drop in the employment income of low-educated young couples. All young Canadian-born couples with high school or less (#1 to #4) ended up with lower employment income in 2000 than their counterparts had in 1980. For these

17. This group represented 4% of all men aged 25-54 living in Canadian-born couples in 2000.

18. The increase in weekly earnings observed between 1980 and 2000 for these six groups was statistically significant (at the 5% level: two-tailed test) only for men aged 45 to 54, with some post-secondary education and living with a woman having a high school diploma or less (#5).

19. To see this, consider a *group* of couples j, defined jointly in terms of the age of men and the educational attainment of partners (j=1, ... 30). For small changes, the rate of change of employment income of a given group of couples, c°_j, is simply:

$$c^{\circ}_j = p^h_j * h^{\circ}_j + p^w_j * w^{\circ}_j \quad \text{where } p^h_j + p^w_j = 1; \qquad (1)$$

Simply, the growth rate of employment income of a given group of couples is a weighted average of male and female earnings growth rate, h°_j and w°_j. Thus, to compensate for the declines in male earnings, women's earnings growth will have to be greater—as a *group*— the greater are the decline in male earnings decline and the greater men's initial share of couples' employment income, p^h_j.

couples, the drop in employment income varied between 6% and 20%, much less than the drop in male earnings (Table 3).

The bad news was not limited to low-educated young couples. Among prime-aged Canadian-born couples with high school or less, those living with a less educated woman (#2) saw their employment income drop between 12% and 15% during the period.

In contrast, prime-aged couples with high school or less and in which women were at least as educated as men (#1, #3 and #4)—a subset that represented 20% of all Canadian-born couples (with men aged 25 to 54) in 2000—experienced no (statistically nor empirically) significant decrease in earnings. In fact, couples with two high school graduates (#4) and with men aged 35 to 44 saw their earnings rise 7%, despite the 9% earnings decline experienced by males in these couples. Couples with two high school graduates (#4) and with men aged 45 to 54 experienced no decrease in employment income despite a 15% drop in male earnings.

Likewise, prime-aged men 35-54 with high school or less but living with women with post-secondary education (#6) were fortunate. Even though their annual earnings fell between 10% and 12% during the period, these males saw their couples' employment income rise 4% to 7%, thanks to their partner's earnings growth.

Furthermore, several men with post-secondary education (#5, #7 and #9) would also have experienced a decline in living standards had they been living alone (and relying solely on their employment income). However, they lived in couples who enjoyed similar or higher employment income than those received by their counterparts in 1980. This was the case for all those whose spouse also had post-secondary education (#7). For instance, even though their annual earnings in 2000 were about 5% lower than that of their counterparts in 1980, prime-aged men in these couples enjoyed a couples' employment income that was 10% higher.

To sum up, women's growing earnings have not always offset the declining earnings of low-educated men. Men in couples with high school or less have avoided a decline in their couple's employment income only if they were aged 35 and over *and* living with women with similar or higher levels of education. Moreover, several men with post-secondary education have avoided a decline in employment income thanks to the growing contribution of their spouse.[20]

While these qualitative conclusions are helpful, they do not provide a sense of the importance of women's earnings growth in preventing a decline in couples' employment income. A crude way to do so is to ask the following question. Of all couples, what percentage experienced a statistically significant decline in *average* male earnings but ended up suffering no statistically significant decrease in *average* couples' earnings? Half of the 30 groups of couples, defined jointly in terms of age and educational attainment of partners, did so. These 15 groups of couples represented 63% of all Canadian-born couples in 2001 (Table 3).

To obtain a more conservative answer, one can ask the alternative question. Of all couples, what percentage experienced a statistically significant *decline* in average male earnings but ended up

20. Appendix Table 3 shows the average annual earnings of the various groups of couples for 1980 and 2000.

enjoying a statistically significant *increase* in average couples' earnings? Seven of the 30 groups of couples, representing 38% of all Canadian-born couples in 2001.

Admittedly, these percentages should be interpreted with caution since they are based on *averages* and thus, may not capture the variety of outcomes experienced by Canadian-born couples of a given age and educational attainment.[21] Nevertheless, they clearly indicate that women's growing earnings have played an important role in preventing declines in living standards among several Canadian-born couples where men had low or moderate levels of education. Analyses of job precariousness or worker vulnerability conducted solely at the *individual* level will fail to capture this important pattern.

VI. Q2: Did women's earnings grow more among couples with low-educated males than among those with highly educated ones?

Since women tend to increase their labour supply when their partner loses his job (Stephens, 2002), one might expect them to have done so to compensate for any long-term earnings declines he may have suffered. Since low-educated males have experienced a more severe deterioration in their earnings than their better educated counterparts, one might expect women living with low-educated males to have increased their earnings more than those living with better educated men.

However, three factors may mitigate this relationship. Since women who live with low-educated men are generally low-educated, they may have had problems increasing their annual earnings substantially even though they would have liked to do so. Conversely, since women who live with highly educated males are generally fairly educated, they may have been more successful than the low-educated ones in increasing their employment income. They may also have become more career-oriented over time than their low-educated counterparts, thereby increasing their labour supply at a greater pace.

At the aggregate level, average annual earnings of women in Canadian-born couples have grown 85% over the last two decades, increasing from roughly $13,000 in 1980 to $24,000 in 2000 (Appendix Table 4).[22] Those of women in other couples rose about $8,000, an increase of 57%. However, those of women in recent immigrant couples showed virtually no increase.

For women living in Canadian-born couples, median earnings grew even more than average earnings, no doubt reflecting their growing participation rates. In contrast, median earnings of women living in recent immigrant couples fell almost 50%.

In sharp constrast with those of their male counterparts, women's annual earnings grew in Canadian-born couples of all ages and educational levels between 1980 and 2000 (Table 4). Earnings grew at much higher rates among prime-aged women (35-54 years) than among the younger ones (25-34 years). For instance, among couples with high school or less, prime-aged women saw their average earnings rise by 46% to 82%, much more than the rates of 12% to 33%

21. We address this issue in Section IX.

22. These figures include wives who have no earnings.

experienced by young women. In absolute terms, wives' growing contribution to couples' employment income varied between $1,100 and $23,000.

Did women's earnings grow more among couples with low-educated males than among those with highly educated ones? The answer is no. In absolute terms, women's earnings grew *less* among couples with low-educated males than among those where men had a university degree (#8, #10). This is true whatever age group is considered. For instance, among young couples with high school or less, women's earnings rose at most $2,900, i.e., twice as less as among those where men had a university degree (Table 4). Similar patterns are observed among older couples. In fact, women's earnings growth was the highest among couples where both partners had a university degree (#10). Women in these couples saw their earnings grow between $8,400 and $23,000.

In relative terms, women's earnings *generally* grew no more among couples with low-educated males than among those with highly educated ones. Among couples with high school or less and men aged 45 to 54, they grew at most 82%, no more than the rates observed among those of similar age and where men had a university degree. There are only two exceptions to this pattern. First, among couples with men aged 35 to 44 and with two high school graduates (#4), women saw their employment income rise 71%, i.e., *more* than among those with two university graduates (#10). Second, women's earnings grew roughly 33% among young couples with two high school dropouts as well as among those with two university graduates.

VII. Q3: Why did women's earnings grow less among couples with low-educated males than among those with highly educated ones?

In an accounting sense, there may be at least two reasons why women's annual earnings grew less—in absolute terms—among those living with low-educated males than among those living with highly educated ones. Compared to their counterparts living with male university graduates, women living with low-educated men: 1) may have increased their annual hours of work to a lesser extent and, 2) may have experienced smaller increases in pay rates.

Even though Census data contain no information on annual hours of work, it is possible to get a sense of whether women living with low-educated men have increased their working time to a lesser extent than others by answering two questions. First, among all women in Canadian-born couples—working or not—by how much has the average annual number of weeks worked increased between 1980 and 2000? Second, among the subset of women with positive weeks worked, by how much has the proportion of those working mainly full-time increased between 1980 and 2000?

Tables 5 and 6 provide the answers to these two questions. When we compare the least educated couples (#1) and the most educated couples (#10), a clear pattern emerges. For all age groups, women in the least educated couples increase their annual number of weeks worked *no more* than those in the most educated ones (Table 5). Moreover, the proportion of employed women working mainly full-time rose *less* among women in the former group than among those in the latter (Table 6).[23] Taken together, these two findings suggest that women in the least educated

23. For all age categories, changes in weeks worked by the two groups are statistically different at the 5% level.

couples have increased their annual hours of work to a lesser extent than their counterparts living in the most educated couples.

Women in the least educated couples have also experienced smaller increases in pay rates than those in the most educated couples. For instance, those working mainly full-time and living in couples with two high school dropouts and with men aged 45 to 54 saw their weekly earnings rise 12% between 1980 and 2000, less than half the rate of 30% observed for their counterparts living in couples with two university graduates (Appendix Table 2). Similar qualitative patterns are observed for younger couples.[24]

Hence, women's annual earnings grew less among couples with two high school dropouts than among couples with two university graduates both because of smaller growth in women's working time and in pay rates.

VIII. Q4: Has the gap between low and high educated couples risen over time?

The smaller growth of women's earnings among couples with low-educated males than among those with highly educated ones has important implications. Since young low-educated males saw their earnings evolve in a less favourable way than those of better educated ones over the last two decades, it implies that the gap between the lowest and highest educated couples must have risen over time, at least for young couples. Appendix Table 3 confirms this view.

For each age group, the average earnings of the most educated couples—those with two university graduates (#10)—rose much more than those of couples with two high school dropouts (#1) or than those of couples with high school or less (#1 to #4). For instance, employment income fell at least 6% among young couples with high school or less but rose 14% among those with two university graduates. Employment income rose at most 7% among prime-aged couples with high school or less but grew at least 15% among those with two university graduates. As a result, young couples with two high school dropouts saw their average earnings fall from $39,500 in 1980 to $33,600 in 2000 while couples with men aged 45 to 54 and with two university graduates saw their average earnings rise from $122,500 to $141,300.[25]

To get a sense of how the distribution of earnings of couples with various education levels has changed during the period, we present histograms of earnings distributions for four groups of couples: 1) those with no high school diploma (#1), 2) those with two high school graduates (#4), 3) those where both partners have post-secondary education (#7) and, 4) those with two university graduates (#10). These histograms are shown in Figures 1 to 3.[26]

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24. One potential explanation for the greater increase in weekly earnings observed among highly educated women is that their higher education level may have allowed them to move to better-paying occupations to a greater extent than their low-educated counterparts.

25. Note that prime-aged couples with at most post secondary education (#5 to #7) did fairly well. They enjoyed increases in employment income ranging from 4% to 16% (Table 4).

26. The histograms contain 18 earnings categories: (1) less than minus $10,000, (2) -$10,000 to 0, (3) 0 to $9,999, (4) $10,000 to $19,999, (5) $20,000 to $29,999, ... (17) $140,000 to $149,999 and, (18) $150,000 or more.

IX. Q5: Within given age and educational categories, have real earnings of couples followed diverging paths?

In a recent study, Frenette, Green and Picot (2004) have shown that post-tax post-transfer family income inequality rose in the 1990s in Canada. A thorough understanding of this important fact requires a solid knowledge of the evolution of couples' employment income not only across age and educational categories, but also within these categories. The reason is that while a growing earnings gap *between* low and high educated couples will tend to increase family income inequality, diverging growth rates of earnings *within* age and educational categories may also be an equally important—and perhaps even more important—contributing factor.

For instance, of all young couples composed of two high school dropouts, those in the bottom third of the earnings distribution may well have experienced a more severe deterioration in their earnings than those in the top third of the distribution. If this pattern were observed for most age and educational groupings, couples earnings' inequality would increase within age and educational categories.

To assess whether this is the case, we quantify the magnitude of the earnings declines/gains experienced by couples, in terms of their age, educational attainment and their position in the *age/education-specific* distribution of couples' earnings.

Have real earnings of couples followed diverging trends within given age and educational categories? The answer is yes. For instance, while young couples with two high school dropouts (#1) saw their earnings fall *on average* 15% between 1980 and 2000, those located in the bottom third of their (age/education-specific) earnings distribution saw their employment income fall 58% between 1980 and 2000 (Table 7). This massive drop in earnings resulted to a large extent from the earnings declines of 66% experienced by males in these couples. In contrast, young couples with two high school dropouts and located in the top third of their earnings distribution suffered only a modest drop in earnings (4%). As a result, earnings growth rates differed at least 50 percentage points between the two groups of couples.

In virtually all cases—29 cells out of 30—employment income of couples in the bottom third of the (age/education-specific) earnings distributions have grown less than that of couples in the top third of these distributions. Growth rates between these two types of couples have diverged by at least 20 percentage points for 15 cells out of 30, which represented 34% of all Canadian-born couples in 2000. Among couples with two high school dropouts, the divergence was even greater, amounting to at least 40 percentage points. Taken together, these results show that couples' earnings inequality has risen substantially within most age and educational categories over the last two decades.

X. Q6: Did couples who suffered earnings declines fully offset these declines through other channels such as government transfers, reductions in family size and other forms of income?

Even if women earnings' growth has not always offset the earnings declines experienced by low-educated males, men and women in couples with lower earnings (than those of observationally equivalent couples in 1980) have not necessarily ended up having lower living standards in 2000 than their counterparts in 1980. This can be so for four reasons. First, other members of the family may have helped offset couples' earnings declines. Second, some couples may have received higher investment income (interests and dividends) in 2000 than their counterparts in 1980. Third, some may have avoided a drop in total income thanks to government transfers. Finally, many couples in 2000 had smaller families than those two decades earlier.

In Table 8, we assess the extent to which these additional buffers have helped Canadian-born couples with falling employment income avoid a decline in living standards. To do so, we show how various measures of earnings and income have evolved between 1980 and 2000. Specifically, we present growth rates of: 1) male earnings, 2) couples' earnings, 3) economic families' earnings, 4) economic families' earnings adjusted for family size, 5) economic families' market income, 6) economic families' pre-tax post-transfer income, and, 7) economic families' pre-tax post-transfer income adjusted for family size (henceforth, adjusted income).[27]

Did couples who suffered earnings declines *fully* offset these declines through other channels such as government transfers, reductions in family size and other forms of income? When we restrict our attention to average outcomes, the answer is—almost none of them did.

Between 1980 and 2000, six groups of couples out of 30 saw their earnings fall significantly: young couples with high school or less (#1 to #4) and prime-aged couples where men had high a high school diploma and women did not have one (#2) (Table 8). These couples represented roughly 8% of all Canadian-born couples in 2001. Among these, only young couples with two high school graduates (#4) ended up experiencing no significant drop in adjusted income, despite a 6% decline in couples' earnings. All others saw their adjusted income drop between 4% and 12%.

As we just mentioned, these numbers are based on averages and do not capture the variety of experiences faced by Canadian-born couples. In Table 9, we replicate Table 8 and examine how earnings and income of couples in the bottom third of their age/education-specific earnings distribution have evolved between 1980 and 2000.

When we do so, the answer to our question changes substantially. Between 1980 and 2000, 17 groups of couples in the bottom tertile experienced (statistically) significant earnings declines.

27. Economic families' market income is the sum of earnings, investment income, retirement income and other money income received by all family members. Pre-tax, post-transfer income equals market income plus government transfers. It is adjusted for family size by dividing it by the square root of the number of persons in the economic family. See Appendix Table 5 for the levels of earnings and income received by various groups of Canadian-born couples in 1980 and 2000.

These couples accounted for 15% of all Canadian-born couples in 2001.[28] Of these groups of couples, nine avoided a decline in adjusted income.

The crucial role played by the various buffers mentioned above can be illustrated by looking at couples with two high school dropouts (#1) and where men were aged 35 to 44. Among those located in the bottom tertile, average male earnings fell a stunning 52% between 1980 and 2000 (Table 9). Women's earnings growth partially offset the earnings declines experienced by males, leading to a drop in couples' earnings of 42%. Earnings of other family members played a minor role, restricting the drop in earnings at the level of the economic family to 40%. Other forms of income played a somewhat more important role, yielding a decline in economic family market income of 33%. Government transfers were by far the most important buffer—they helped convert a 33% drop in market income into an 8% drop in pre-tax post-transfer income. In the end, these couples ended up having a level of income (adjusted for family size) similar to that of their counterparts, thanks also to a reduction in family size.

At the top tertile, only young couples with less than two high school graduates (#1 to #3) and prime-aged couples where men had high a high school diploma and women did not have one (#2) experienced significant earnings declines (Table 10). Among these, young couples with two high school dropouts (#1) and those where men were aged 35 to 44 fully offset their earnings declines through other channels. Others did not.[29]

Hence, whether we focus on couples' earnings at the mean, at the bottom tertile or top tertile, at most half of the *groups* of Canadian-born couples who suffered earnings declines fully offset these declines through other channels such as government transfers, reductions in family size and other forms of income.

In contrast, recent immigrant couples were much less successful in offsetting earnings declines. When we use broader educational categories, we find that all groups of prime-aged recent immigrant couples experienced declines in average adjusted income ranging from 22% to 29% (Table 11). Only young recent immigrant couples with at least one university graduate did not suffer a statistically significant drop in adjusted income.

XI. Q7: How has the changing age and education distribution of couples altered their earnings distribution?

The aging of couples and their growing educational attainment no doubt have tended to increase their employment income. By how much would median and average employment income of couples have risen between 1980 and 2000, in the absence of these changes? Moreover, what would the distribution of couples' earnings look like in 2000 if couples had the age and education

28. The careful reader will have noted that the percentage of couples (measured using *groups* of couples rather than individual couples) who experienced significant earnings declines rises from 8% to 15% when we move from average earnings growth to average earnings growth in the bottom tertile. This simply highlights the diversity of outcomes experienced by couples and reinforces the notion that a thorough analysis of the evolution of couples' earnings requires looking at different parts of the earnings distribution.

29. Among the aforementioned couples, those with men aged 45 to 54 experienced a 6% drop in income that is not statistically significant at the 5% level.

levels of their counterparts in 1980 but received the employment income observed in 2000 in each age-education group? We examine these two questions in this section.

The first panel of Table 12 presents (average and median) employment income of couples during the 1980-2000 period. In the second panel, we re-weight the data for the years 1985, 1990, 1995 and 2000, using the age-education structure of couples of 1980—i.e., reweighting the 30 age-education categories to the age-education structure of 1980—while leaving unchanged the employment income of couples in each of these years.

The results are striking. Between 1980 and 2000, median annual earnings of Canadian-born couples rose 16% (Table 12, Panel I). In the absence of growth in the age and educational attainment of Canadian-born couples, median annual earnings would have almost stagnated (Table 12, Panel II). Likewise, average annual earnings of Canadian-born couples rose 23% during the period but would have risen only 3% in the absence of these changes. Thus, virtually all the growth in median and average annual earnings of Canadian-born couples can be attributed to changes in the age and educational profile of couples.

Changes in the age and educational attainment of recent immigrant couples tended to moderate the drop in their employment income. For instance, median annual earnings of these couples fell 31% between 1980 and 2000 but would have fallen even more (39%) in the absence of these changes.

Meanwhile, the earnings distribution of couples was undergoing profound changes. During the period considered, the fraction of Canadian-born couples earning between $25,000 and $75,000 fell markedly, dropping from 62% in 1980 to 50% in 2000 (Figures 4.1 to 4.4 and Table 13). While the fraction of those earning less than $25,000 changed little, the fraction of those earning more than $75,000 rose a solid 13 percentage points, increasing from 24% in 1980 to 37% in 2000.

Even more dramatic changes were observed among recent immigrant couples. Among these couples, the fraction earning less than $25,000 more than doubled, rising from 15% in 1980 to 37% in 2000.[30] The fraction earning between $25,000 and $75,000 fell markedly: it dropped from 66% in 1980 to 48% in 2000.

What impact did changes in the age and educational profile of couples have on their earnings distribution? First, they prevented an increase in the number of Canadian-born couples with fairly low employment income. Without these socio-economic changes, the fraction of Canadian-born couples receiving less than $25,000 would have increased from 14% in 1980 to 18% in 2000 (this fraction stood actually at 13% in 2000).

30. This increase in the fraction of recent immigrant couples with fairly low earnings is consistent with the rise in low-income rates among recent immigrants, documented by Picot and Hou (2003).

Second, they accentuated the decline in the fraction of couples—Canadian-born, recent immigrant and other—earning between $25,000 and $50,000. Third, they induced a strong increase in the number of "rich" couples. They accounted for roughly 60% of the increase in the fraction of Canadian-born couples earning more than $100,000.[31] They also accounted for about 70% of the growth in the fraction of other couples earning more than $100,000. Fourth, they accounted for virtually all of the increase in the fraction of Canadian-born couples earning between $75,000 and $100,000.

However, because the earnings declines of recent immigrant couples were widespread, these changes did not substantially reduce the growth of recent immigrant couples' earnings less than $25,000. Nor they did have much impact on the decline in the fraction of those earning between $50,000 and $75,000.

Thus, the aging of the Canadian population and the growth in its educational attainment had several impacts of the earnings distribution of couples. They tended to restrict the growth of couples with fairly low employment income, especially among Canadian-born couples. They accelerated the decline in the relative importance of couples earning $25,000 to $50,000. Finally, they contributed significantly to the emergence of a group of couples with fairly high earnings, those receiving more than $100,000 per year.

XII. Q8: Which couples can rely on a significant second earner and how has the profile of these couples changed over time?

Canadian couples have been increasingly relying on two earners to generate income from the labour market. The sum of annual hours worked by both spouses has increased in many cases, raising the well-publicized issue of how to balance family and work. For instance, the average number of weeks worked by prime-aged Canadian-born couples rose between 6% and 21% between 1980 and 2000 (Appendix Table 6). While the fraction of prime-aged men working mainly full-time has barely changed, the fraction of employed wives working full-time has risen between 6% and 37%, thereby suggesting a reduction in leisure time for many couples (Appendix Table 7).

The difficulty to balance family and work-related activities has often been emphasized in the media. However, the notion that the growth in the number of dual earner couples has also spread the risk of job loss across two individuals, rather than concentrating it on a single worker, has not received as much attention. This notion is particularly relevant for couples where there is a significant second earner. In the event of the main earner's job loss, these couples will face less severe decreases in income than other couples (in relative terms).

The fraction of couples with a significant second earner—i.e., one receiving at least 40% of the couple's employment income— rose over the last two decades. It amounted to 26% in 2000, up from 16% in 1980 (Figure 5 and Table 14). This fraction rose roughly 10 percentage points for

31. This is so since this fraction would have risen from 8% in 1980 to only 12% in 2000 (instead of 18%) had the age-education distribution of couples remained unchanged.

Canadian-born couples and other couples but grew by only 3 percentage points among recent immigrant couples.[32]

Couples with high employment income are more likely to have a significant second earner than other couples. For instance, Canadian-born couples earning more than $75,000 were twice as likely to satisfy this condition as those earning less than $50,000 in 2000.

Among Canadian-born couples, those who are highly educated also have greater chances of having a significant second earner than others. In 2000 about one-third of those with at least one university graduate (#8 to #10) have a significant second earner, compared to 22% for couples with high school or less (#1 to #4) (Table 15). However, this pattern is not observed among recent immigrant couples—the propensity to have a significant second earner does not rise with couples' educational attainment.

Given that employment income and the probability of a couple having a significant second earner both depend on couples' educational attainment—at least for Canadian-born couples—we investigate further the relationship between couples' education levels and these two outcomes in Table 16.

As expected, the data reveal striking differences across educational levels. Of all Canadian-born couples with men aged 25 to 54 and with two university graduates (#10), 35% had a significant second earner, 51% earned more than $100,000 and 22% satisfied these two conditions in 2000. The corresponding numbers for couples with two high school graduates (#4) are much lower—26%, 12% and 4%, respectively. In fact, among couples with high school or less (#1 to #4) and those with at most post-secondary education (#5 to #7), at most 6% can satisfy these two conditions.

To assess the robustness of these patterns, we estimate a bivariate probit model where the probability of having a significant second earner and the probability of earning more than $100,000 are modeled as a function of men's age group (25 to 34 being the omitted group, 35 to 44 and 45 to 54) and couples' educational attainment (10 categories, couples with two university graduates being the omitted group). Separate models are estimated for 1980 and 2000. The results are shown in Table 17.[33]

They confirm that Canadian-born couples with two university graduates are more likely than others to have a significant second earner and also to receive high earnings. For Canadian-born couples with men aged 35 to 44 and with two university graduates (#10), the probability of satisfying these two conditions equals 20% in 2000, five times the probability observed for couples with two high school graduates (#4).

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32. For Tables 14 to 17, we restrict our analysis to couples with men aged 25 to 54, who receive positive wages and salaries in a given year and where *none of the spouses is self-employed.*

33. Detailed regression results are available from the authors upon request. These results show a positive correlation between the error term of the probability of having a significant second earner and that of the probability of earning more than $100,000. This suggests that among couples of identical age and educational attainment, those who tend to receive high earnings also tend to have a significant second earner.

These results imply that highly educated couples enjoy a triple advantage—in terms of economic security—when compared to their less educated counterparts. First, they are more likely to receive high labour market income, thereby allowing them the possibility to build substantial savings for precautionary motives (e.g., to buffer the income losses resulting from layoffs).[34] Second, they are less likely to be laid-off (Galarneau and Stratychuk, 2001). Third, in the event of a layoff, they can rely more often on a significant second earner to moderate the variability of family earnings. For these three reasons, couples with two university graduates are less vulnerable to negative income shocks than other couples.

XIII. Conclusion

Our main goal in this paper has been to assemble a set of facts regarding the performance of low and high educated couples in the Canadian labour market, hoping to shed light on important issues such as worker vulnerability, women's role as a buffer of long-term earnings declines faced by some men, and family income inequality.

Regarding the issue of worker vulnerability, two lessons can be drawn from our findings. First, it is clear that several men with low or moderate levels of education, who have been adversely affected by long-term changes in the wage structure, have avoided a decline in living standards thanks to their partner's growing contribution to their employment income.[35] As such, these results highlight the limitations of analyses of job precariousness or worker vulnerability that are conducted solely at the individual level. Second, while the earnings declines experienced by low-educated males—especially the younger ones—have made them more "vulnerable" to unexpected events (i.e., less likely to earn "sufficient" income from the labour market to build savings that would protect them against unexpected expenditures or income losses), the last two decades have witnessed the emergence of a group of couples unlikely to be vulnerable to negative income shocks—couples with two university graduates. At the beginning of the 1980s, these couples represented only 4% of all Canadian-born couples. They now account for 10% of all Canadian-born couples.

While women have played an important role in offsetting the earnings declines of low-educated males over the last two decades, their ability to do so in the future could be severely hampered by the simple fact that most of those who live with low-educated males are also low-educated.[36] The fact that, between 1980 and 2000, women's earnings have grown *less* among couples with low-educated males than among those with high educated is a clear reminder that low-educated women's ability to buffer unfavourable changes in male earnings is limited.

34. Whether or not they do so is another issue. The key point here is that they have the *opportunity* to build these savings for precautionary motives.
35. Whether the increase in women's aggregate labour supply has exerted downwards pressures on men's wages is a macroeconomic issue that is not addressed in this study.
36. Of all women living in Canadian-born couples with men aged 25 to 54 who had high school or less, 64% had high school or less in 2001.

This limitation has important implications for family income inequality. In an economy where low-educated workers have more difficulty converting their desired workhours (or labour supply) into actual workhours than their better educated counterparts, the limited success of low-educated women in the labour market makes it harder for low-educated couples to prevent a widening of the gap between them and better educated couples. As a result, earnings inequality tends to increase between low and high educated couples. Furthermore, if men and women who live together have both similar education levels[37] and skills levels (within educational categories), factors that increase the return to skill at the individual level will also tend to increase couples' earnings inequality within given age and educational categories. These are two of the patterns that this study has documented. Future work on family income inequality should be considered.

37. Among Canadian-born couples, the fraction of men and women with "similar" educational attainment rose between 1981 and 2001. Using the four educational categories defined above at the individual level (no high school diploma, high school diploma, post-secondary education below bachelor's level, university degree), we find that 85% of Canadian-born couples (with men aged 25 to 54) were composed of individuals with identical or adjacent education levels in 2001, up from 78% in 1981. By "adjacent" education level, we mean the educational category right below or above a given one (e.g., the two categories "no high school diploma" and "post-secondary education below bachelor's level" are adjacent to the category "high school diploma"). In other terms, we cross-classify men and women by education level (using the four categories defined above) and add the cells in the diagonal of the table to the adjacent off-diagonal cells.

Table 1: Percentage distribution of couples, by education level of partners, Canada, 1980-2000 - Couples with men aged 25 to 54

Educational categories*											
	1	2	3	4	5	6	7	8	9	10	All
All Couples											
1980	23.9	4.0	4.8	5.3	19.3	10.8	15.1	8.8	2.8	5.2	100.0
1985	20.2	4.0	5.1	5.3	17.8	11.6	16.6	9.0	3.8	6.6	100.0
1990	15.7	2.5	4.4	7.6	15.5	11.6	20.5	9.0	4.9	8.2	100.0
1995	12.5	3.5	4.5	10.2	12.2	12.5	19.3	8.9	6.5	9.9	100.0
2000	10.0	2.9	4.6	10.7	13.2	11.3	18.0	8.9	8.2	12.3	100.0
Canadian-born Couples											
1980	24.4	4.3	5.4	5.7	19.1	11.8	14.2	8.2	2.5	4.3	100.0
1985	20.5	4.2	5.6	5.6	18.0	12.7	16.2	8.1	3.6	5.5	100.0
1990	15.7	2.7	4.9	7.8	15.9	12.7	20.5	8.2	4.7	7.0	100.0
1995	12.3	3.7	5.0	10.5	12.6	13.8	19.4	7.9	6.4	8.5	100.0
2000	9.6	3.0	5.2	10.7	14.1	12.7	18.9	7.6	8.2	9.9	100.0
Recent Immigrant Couples											
1980	17.6	3.7	1.1	4.5	19.8	5.2	20.6	12.8	3.6	11.2	100.0
1985	23.0	3.9	1.7	5.5	13.7	4.4	17.2	13.5	3.6	13.6	100.0
1990	18.0	2.3	1.2	9.1	10.4	5.4	20.6	14.0	4.8	14.2	100.0
1995	16.3	3.2	1.3	11.1	9.4	5.5	16.8	12.7	5.1	18.6	100.0
2000	7.5	2.0	1.0	8.8	6.2	2.6	11.8	17.3	5.7	37.2	100.0
Other Couples											
1980	23.0	3.0	3.3	4.2	19.7	8.1	17.3	10.3	3.5	7.6	100.0
1985	19.2	3.3	3.7	4.5	17.5	8.6	17.7	11.6	4.5	9.5	100.0
1990	15.6	2.0	3.0	7.0	14.7	8.6	20.7	11.4	5.6	11.5	100.0
1995	12.7	2.8	3.1	9.3	11.6	9.3	19.3	11.4	7.3	13.1	100.0
2000	11.3	2.6	3.2	11.0	11.3	7.9	16.3	11.6	8.6	16.3	100.0

* The numbers in this table refer to opposite-sex couples in married or common-law relationships. The educational categories are defined as follows:

1. Both man and woman without high school diploma
2. Man with high school diploma, woman without high school diploma
3. Woman with high school diploma, man without high school diploma
4. Both man and woman with high school diploma
5. Man with post-secondary education below bachelor's level, woman with high school diploma or less
6. Woman with post-secondary education below bachelor's level, man with high school diploma or less
7. Both man and woman with post-secondary education below bachelor's level
8. Man with a university degree, wife with post-secondary education below bachelor's level or less
9. Woman with a university degree, man with post-secondary education below bachelor's level or less,
10. Both man and woman with a university degree

Source: Censuses 1981, 1986, 1991, 1996 and 2001.

Table 2: Average annual earnings of men in Canadian-born couples (with men aged 25 to 54), by age of men and education level of partners, Canada, 1980 and 2000

	Education level of partners*									
	1	2	3	4	5	6	7	8	9	10
Men aged 25-34										
1980	32,300	38,500	35,900	39,600	41,100	37,500	41,700	54,000	40,100	53,000
2000	23,900	27,900	27,200	33,600	36,600	35,500	38,500	52,100	41,700	55,600
% change	**-26%**	**-28%**	**-24%**	**-15%**	**-11%**	-5%	**-8%**	-4%	4%	5%
Incidence in 2000 (%) **	1.7	0.7	1.1	2.4	3.0	3.5	5.1	1.6	2.8	3.0
Men aged 35-44										
1980	37,000	48,100	41,300	47,900	48,300	45,800	50,000	78,700	51,100	80,500
2000	31,900	35,100	34,100	43,500	45,800	40,300	48,100	76,900	51,400	88,200
% change	**-14%**	**-27%**	**-17%**	**-9%**	**-5%**	**-12%**	**-4%**	-2%	0%	**10%**
Incidence in 2000 (%) **	3.6	1.2	2.2	4.2	5.7	5.2	8.0	2.9	3.2	3.7
Men aged 45-54										
1980	36,700	50,500	41,800	53,800	47,700	45,400	51,800	93,000	59,500	98,100
2000	32,000	38,100	34,400	46,000	48,000	40,800	48,500	81,200	51,900	94,000
% change	**-13%**	**-25%**	**-18%**	**-15%**	1%	**-10%**	**-6%**	**-13%**	**-13%**	**-4%**
Incidence in 2000 (%) **	4.3	1.2	1.9	4.1	5.5	4.0	5.8	3.2	2.2	3.3

* The numbers in this table refer to opposite-sex couples in married or common-law relationships. The education level of partners is defined as follows:

1. Both man and woman without high school diploma
2. Man with high school diploma, woman without high school diploma
3. Woman with high school diploma, man without high school diploma
4. Both man and woman with high school diploma
5. Man with post-secondary education below bachelor's level, woman with high school diploma or less
6. Woman with post-secondary education below bachelor's level, man with high school diploma or less
7. Both man and woman with post-secondary education below bachelor's level
8. Man with a university degree, wife with post-secondary education below bachelor's level or less
9. Woman with a university degree, man with post-secondary education below bachelor's level or less,
10. Both man and woman with a university degree

**: This reads as follows: "Of all Canadian-born couples with men aged 25 to 54, what percentage were in a given age and education category in 2000?".
Percentage changes are in bold whenever the *difference* between annual earnings in 2000 and those in 1980 is statistically significant at the 5% level.

Source: Censuses 1981 and 2001.

Table 3: Growth of male earnings and couples' earnings, by age of men and education level of partners, Canadian-born couples with men aged 25 to 54, Canada, 1980-2000

	Education level of partners*									
	1	2	3	4	5	6	7	8	9	10
Men aged 25 to 34										
1. Male earnings	-26%	-28%	-24%	-15%	-11%	-5%	-8%	-4%	4%	5%
2. Couples' earnings	-15%	-20%	-15%	-6%	-1%	3%	3%	7%	6%	14%
Incidence in 2000 (%) **	1.7	0.7	1.1	2.4	3.0	3.5	5.1	1.6	2.8	3.0
Men aged 35 to 44										
1. Male earnings	-14%	-27%	-17%	-9%	-5%	-12%	-4%	-2%	0%	10%
2. Couples' earnings	0%	-15%	-2%	7%	9%	4%	10%	12%	8%	22%
Incidence in 2000 (%) **	3.6	1.2	2.2	4.2	5.7	5.2	8.0	2.9	3.2	3.7
Men aged 45 to 54										
1. Male earnings	-13%	-25%	-18%	-15%	1%	-10%	-6%	-13%	-13%	-4%
2. Couples' earnings	2%	-12%	-1%	3%	16%	7%	10%	2%	-1%	15%
Incidence in 2000 (%) **	4.3	1.2	1.9	4.1	5.5	4.0	5.8	3.2	2.2	3.3

* The numbers in this table refer to opposite-sex couples in married or common-law relationships. The education level of partners is defined as follows:

1. Both man and woman without high school diploma
2. Man with high school diploma, woman without high school diploma
3. Woman with high school diploma, man without high school diploma
4. Both man and woman with high school diploma
5. Man with post-secondary education below bachelor's level, woman with high school diploma or less
6. Woman with post-secondary education below bachelor's level, man with high school diploma or less
7. Both man and woman with post-secondary education below bachelor's level
8. Man with a university degree, wife with post-secondary education below bachelor's level or less
9. Woman with a university degree, man with post-secondary education below bachelor's level or less,
10. Both man and woman with a university degree

**: This reads as follows: "Of all Canadian-born couples with men aged 25 to 54, what percentage were in a given age and education category in 2000?".

Shaded areas indicate cases where the *difference* between average earnings in 2000 and those in 1980 is statistically significant at the 5% level.

Source: Censuses 1981 and 2001.

Table 4: Average annual earnings of women in Canadian-born couples (with men aged 25 to 54), by age of male partner and education level of partners, Canada, 1980 and 2000

	Education level of partners*									
	1	2	3	4	5	6	7	8	9	10
Men aged 25-34										
1980	7,300	8,700	12,200	13,000	10,400	15,800	15,700	16,300	27,700	26,200
2000	9,700	9,800	13,700	15,900	14,100	19,200	20,700	22,800	30,500	34,600
% change	**33%**	**12%**	**12%**	**23%**	**36%**	**22%**	**32%**	**40%**	**10%**	**32%**
change	**2,400**	**1,100**	**1,500**	**2,900**	**3,700**	**3,400**	**5,000**	**6,500**	**2,800**	**8,400**
Men aged 35-44										
1980	8,200	9,300	12,400	12,200	9,700	15,500	15,300	12,600	33,300	26,500
2000	13,000	13,500	18,700	20,800	17,500	23,600	23,600	25,100	39,800	42,200
% change	**60%**	**46%**	**51%**	**71%**	**79%**	**52%**	**54%**	**99%**	**19%**	**59%**
change	**4,800**	**4,200**	**6,300**	**8,600**	**7,800**	**8,100**	**8,300**	**12,500**	**6,500**	**15,700**
Men aged 45-54										
1980	8,000	8,800	12,600	12,100	9,600	16,700	15,600	12,700	36,100	24,400
2000	13,400	14,100	19,300	21,900	18,600	25,400	25,800	26,600	43,100	47,400
% change	**66%**	**59%**	**53%**	**82%**	**94%**	**52%**	**65%**	**109%**	**19%**	**94%**
change	**5,400**	**5,300**	**6,700**	**9,800**	**9,000**	**8,700**	**10,200**	**13,900**	**7,000**	**23,000**

* The numbers in this table refer to opposite-sex couples in married or common-law relationships. The education level of partners is defined as follows:

1. Both man and woman without high school diploma
2. Man with high school diploma, woman without high school diploma
3. Woman with high school diploma, man without high school diploma
4. Both man and woman with high school diploma
5. Man with post-secondary education below bachelor's level, woman with high school diploma or less
6. Woman with post-secondary education below bachelor's level, man with high school diploma or less
7. Both man and woman with post-secondary education below bachelor's level
8. Man with a university degree, wife with post-secondary education below bachelor's level or less
9. Woman with a university degree, man with post-secondary education below bachelor's level or less,
10. Both woman and man wife with a university degree

Changes and % changes in earnings are in bold whenever the difference between average earnings in 1980 and those in 2000 is statistically significant at the 5% level.

Table 5: Average weeks worked by women in Canadian-born couples (with men aged 25 to 54), by age of male partner and education level of partners, Canada, 1980 and 2000

	Education level of partners*									
	1	2	3	4	5	6	7	8	9	10
Men aged 25-34										
1980	17.7	20.8	26.1	26.5	22.6	30.1	28.8	28.4	37.1	33.9
2000	24.6	26.8	31.7	34.2	32.0	38.2	38.8	37.7	41.6	40.8
change	**6.9**	**6.0**	**5.5**	**7.7**	**9.4**	**8.1**	**10.0**	**9.3**	**4.5**	**6.9**
Men aged 35-44										
1980	19.7	20.8	25.8	24.6	21.6	29.0	28.2	22.3	36.0	30.2
2000	28.6	30.7	36.7	37.6	33.9	40.3	39.5	37.0	42.3	39.7
change	**8.8**	**9.9**	**10.9**	**13.0**	**12.3**	**11.2**	**11.3**	**14.7**	**6.3**	**9.6**
Men aged 45-54										
1980	19.5	19.8	26.4	24.0	21.6	30.1	29.2	21.4	37.3	28.6
2000	28.6	30.6	36.5	37.7	34.6	40.7	40.3	37.7	43.2	42.1
change	**9.1**	**10.8**	**10.2**	**13.7**	**13.0**	**10.6**	**11.2**	**16.3**	**5.9**	**13.5**

* The numbers in this table refer to opposite-sex couples in married or common-law relationships. The education level of partners is defined as follows:

1. Both man and woman without high school diploma
2. Man with high school diploma, woman without high school diploma
3. Woman with high school diploma, man without high school diploma
4. Both man and woman with high school diploma
5. Man with post-secondary education below bachelor's level, woman with high school diploma or less
6. Woman with post-secondary education below bachelor's level, man with high school diploma or less
7. Both man and woman with post-secondary education below bachelor's level
8. Man with a university degree, wife with post-secondary education below bachelor's level or less
9. Woman with a university degree, man with post-secondary education below bachelor's level or less,
10. Both man and woman with a university degree

The numbers in this table include women with no weeks worked during the reference year.
Changes in weeks worked are in bold whenever the difference between average weeks worked in 1980 and those worked in 2000 is statistically significant at the 5% level.

Source: Censuses 1981 and 2001.

Table 6: Proportion of employed women working mainly full-time, by age of male partner and education level of partners, Canadian-born couples with men aged 25 to 54, Canada, 1980 and 2000

	Education level of partners*									
	1	2	3	4	5	6	7	8	9	10
Men aged 25-34										
1980	0.70	0.71	0.74	0.75	0.72	0.72	0.71	0.71	0.79	0.75
2000	0.69	0.66	0.71	0.73	0.69	0.75	0.76	0.75	0.82	0.82
change	-0.01	**-0.05**	-0.03	-0.02	**-0.03**	**0.03**	**0.04**	**0.04**	0.02	**0.07**
Men aged 35-44										
1980	0.65	0.62	0.70	0.66	0.62	0.63	0.59	0.48	0.74	0.60
2000	0.71	0.70	0.76	0.72	0.70	0.74	0.72	0.65	0.79	0.71
change	**0.06**	**0.08**	**0.07**	**0.06**	**0.07**	**0.11**	**0.13**	**0.16**	**0.04**	**0.11**
Men aged 45-54										
1980	0.64	0.60	0.67	0.62	0.59	0.65	0.60	0.49	0.77	0.57
2000	0.74	0.72	0.77	0.77	0.72	0.75	0.73	0.68	0.82	0.76
change	**0.10**	**0.12**	**0.10**	**0.15**	**0.13**	**0.10**	**0.14**	**0.18**	**0.05**	**0.18**

* The numbers in this table refer to opposite-sex couples in married or common-law relationships. The education level of partners is defined as follows:

1. Both man and woman without high school diploma
2. Man with high school diploma, woman without high school diploma
3. Woman with high school diploma, man without high school diploma
4. Both man and woman with high school diploma
5. Man with post-secondary education below bachelor's level, woman with high school diploma or less
6. Woman with post-secondary education below bachelor's level, man with high school diploma or less
7. Both man and woman with post-secondary education below bachelor's level
8. Man with a university degree, wife with post-secondary education below bachelor's level or less
9. Woman with a university degree, man with post-secondary education below bachelor's level or less,
10. Both man and woman with a university degree

The numbers in this table *exclude* women with no weeks worked during the reference year.
Changes are in bold whenever the proportion of employed women working mainly full-time in 1980 is statistically different from that in 2000 at the 5% level.

Source: Censuses 1981 and 2001.

Table 7: Growth of male earnings and couples' earnings, by age of men, education level of partners and position in the earnings distribution, Canadian-born couples with men aged 25 to 54, Canada, 1980-2000

	Education level of partners*									
	1	2	3	4	5	6	7	8	9	10
Men aged 25-34										
a) Male earnings										
1. Average	-26%	-28%	-24%	-15%	-11%	-5%	-8%	-4%	4%	5%
2. Bottom third**	-66%	-58%	-49%	-32%	-28%	-16%	-19%	-18%	5%	-11%
3. Top third**	-16%	-14%	-13%	-6%	-1%	7%	1%	8%	8%	19%
b) Couples' earnings										
1. Average	-15%	-20%	-15%	-6%	-1%	3%	3%	7%	6%	14%
2. Bottom third**	-58%	-51%	-41%	-23%	-18%	-6%	-6%	-7%	15%	6%
3. Top third**	-4%	-8%	-6%	1%	5%	10%	8%	14%	7%	21%
Incidence in 2000 (%) ***	1.7	0.7	1.1	2.4	3.0	3.5	5.1	1.6	2.8	3.0
Men aged 35-44										
a) Male earnings										
1. Average	-14%	-27%	-17%	-9%	-5%	-12%	-4%	-2%	0%	10%
2. Bottom third**	-52%	-55%	-36%	-25%	-14%	-17%	-12%	-24%	-14%	-17%
3. Top third**	-2%	-17%	-12%	1%	-1%	-9%	3%	10%	6%	31%
b) Couples' earnings										
1. Average	0%	-15%	-2%	7%	9%	4%	10%	12%	8%	22%
2. Bottom third**	-42%	-46%	-18%	-7%	0%	2%	5%	-7%	2%	6%
3. Top third**	11%	-5%	2%	13%	11%	5%	13%	20%	13%	34%
Incidence in 2000 (%) ***	3.6	1.2	2.2	4.2	5.7	5.2	8.0	2.9	3.2	3.7
Men aged 45-54										
a) Male earnings										
1. Average	-13%	-25%	-18%	-15%	1%	-10%	-6%	-13%	-13%	-4%
2. Bottom third**	-47%	-44%	-27%	-28%	-15%	-25%	-17%	-31%	-23%	-22%
3. Top third**	-4%	-21%	-13%	-9%	7%	-5%	-1%	-2%	-13%	7%
b) Couples' earnings										
1. Average	2%	-12%	-1%	3%	16%	7%	10%	2%	-1%	15%
2. Bottom third**	-33%	-31%	-7%	-9%	5%	-1%	2%	-15%	-2%	4%
3. Top third**	9%	-9%	0%	7%	21%	9%	13%	10%	-1%	23%
Incidence in 2000 (%) ***	4.3	1.2	1.9	4.1	5.5	4.0	5.8	3.2	2.2	3.3

*: See Table 6 for the definition of the education level of partners.

**: Average earnings growth of male earnings and couples' earnings for couples located in the bottom third (or top third) of the distribution of *couples'* earnings of *a given age and educational category*.

***: This reads as follows: "Of all Canadian-born couples with men aged 25 to 54, what percentage were in a given age and education category in 2000?"

Shaded areas indicate cases where the *difference* between average earnings in 2000 and those in 1980 is statistically significant at the 5% level.

Table 8: Average earnings growth and income growth, by age of men and education level of partners, 1980-2000 (Canadian-born couples)

	Education level of partners*									
	1	2	3	4	5	6	7	8	9	10
Men aged 25 to 34										
1. Male earnings	-26%	-28%	-24%	-15%	-11%	-5%	-8%	-4%	4%	5%
2. Couples' earnings	-15%	-20%	-15%	-6%	-1%	3%	3%	7%	6%	14%
3. EF earnings	-12%	-17%	-12%	-2%	1%	4%	4%	8%	7%	15%
4. EF earnings (size-adjusted)	-12%	-19%	-14%	-3%	2%	4%	6%	11%	7%	17%
5. EF market income	-11%	-16%	-12%	-1%	1%	4%	5%	7%	5%	13%
6. EF total income	-2%	-9%	-7%	1%	4%	6%	6%	7%	6%	13%
7. EF total income (size-adjusted)	-4%	-12%	-10%	-1%	5%	6%	8%	10%	6%	15%
Incidence in 2000 (%) **	1.7	0.7	1.1	2.4	3.0	3.5	5.1	1.6	2.8	3.0
Men aged 35 to 44										
1. Male earnings	-14%	-27%	-17%	-9%	-5%	-12%	-4%	-2%	0%	10%
2. Couples' earnings	0%	-15%	-2%	7%	9%	4%	10%	12%	8%	22%
3. EF earnings	-2%	-15%	-2%	7%	8%	3%	9%	11%	8%	21%
4. EF earnings (size-adjusted)	5%	-9%	2%	9%	12%	8%	13%	15%	7%	22%
5. EF market income	-1%	-14%	-2%	9%	7%	2%	7%	9%	5%	20%
6. EF total income	2%	-10%	1%	10%	8%	3%	8%	9%	5%	20%
7. EF total income (size-adjusted)	10%	-5%	5%	12%	12%	8%	12%	13%	5%	21%
Incidence in 2000 (%) **	3.6	1.2	2.2	4.2	5.7	5.2	8.0	2.9	3.2	3.7
Men aged 45-54										
1. Male earnings	-13%	-25%	-18%	-15%	1%	-10%	-6%	-13%	-13%	-4%
2. Couples' earnings	2%	-12%	-1%	3%	16%	7%	10%	2%	-1%	15%
3. EF earnings	-7%	-17%	-7%	-3%	8%	1%	5%	0%	-3%	13%
4. EF earnings (size-adjusted)	4%	-10%	2%	4%	16%	8%	12%	9%	-1%	19%
5. EF market income	-8%	-18%	-10%	-5%	5%	-3%	2%	-4%	-8%	8%
6. EF total income	-5%	-16%	-8%	-4%	6%	-2%	2%	-4%	-8%	7%
7. EF total income (size-adjusted)	6%	-8%	1%	3%	13%	5%	9%	5%	-6%	13%
Incidence in 2000 (%) **	4.3	1.2	1.9	4.1	5.5	4.0	5.8	3.2	2.2	3.3

*: SeeTable 6 for definitions.

**: This reads as follows: "Of all Canadian-born couples with men aged 25 to 54, what percentage were in a given age and education category in 2000?"
EF: economic families. See text for definitions. Shaded areas indicate cases where the *difference* between average earnings (income) in 2000 and those in 1980 is statistically significant at the 5% level.

Table 9: Average earnings growth and income growth, by age of men and education level of partners, 1980-2000 (Canadian-born couples in the bottom tertile)

	Education level of partners*									
	1	2	3	4	5	6	7	8	9	10
Men aged 25 to 34										
1. Male earnings	-66%	-58%	-49%	-32%	-28%	-16%	-19%	-18%	5%	-11%
2. Couples' earnings	-58%	-51%	-41%	-23%	-18%	-6%	-6%	-7%	15%	6%
3. EF earnings	-51%	-46%	-37%	-13%	-13%	-2%	-2%	-4%	14%	9%
4. EF earnings (size-adjusted)	-52%	-46%	-38%	-16%	-11%	-2%	0%	-1%	14%	12%
5. EF market income	-47%	-43%	-35%	-10%	-12%	0%	0%	-6%	11%	6%
6. EF total income	-9%	-16%	-12%	-1%	1%	8%	7%	-2%	13%	8%
7. EF total income (size-adjusted)	-12%	-18%	-15%	-5%	1%	7%	9%	1%	12%	11%
Incidence in 2000 (%) **	0.6	0.2	0.4	0.8	1.0	1.2	1.7	0.5	0.9	1.0
Men aged 35 to 44										
1. Male earnings	-52%	-55%	-36%	-25%	-14%	-17%	-12%	-24%	-14%	-17%
2. Couples' earnings	-42%	-46%	-18%	-7%	0%	2%	5%	-7%	2%	6%
3. EF earnings	-40%	-44%	-18%	-8%	-1%	0%	4%	-7%	2%	6%
4. EF earnings (size-adjusted)	-35%	-41%	-14%	-6%	5%	7%	8%	0%	5%	11%
5. EF market income	-33%	-41%	-15%	2%	-2%	-2%	2%	-10%	-5%	1%
6. EF total income	-8%	-22%	4%	11%	6%	7%	8%	-7%	-2%	2%
7. EF total income (size-adjusted)	0%	-18%	8%	12%	13%	13%	12%	0%	2%	6%
Incidence in 2000 (%) **	1.2	0.4	0.7	1.4	1.9	1.7	2.6	1.0	1.1	1.2
Men aged 45-54										
1. Male earnings	-47%	-44%	-27%	-28%	-15%	-25%	-17%	-31%	-23%	-22%
2. Couples' earnings	-33%	-31%	-7%	-9%	5%	-1%	2%	-15%	-2%	4%
3. EF earnings	-41%	-34%	-15%	-18%	-7%	-11%	-6%	-17%	-7%	1%
4. EF earnings (size-adjusted)	-33%	-27%	-6%	-8%	2%	-2%	2%	-10%	0%	8%
5. EF market income	-34%	-31%	-17%	-15%	-7%	-12%	-9%	-17%	-9%	-7%
6. EF total income	-19%	-21%	-8%	-11%	-2%	-6%	-5%	-15%	-6%	-6%
7. EF total income (size-adjusted)	-6%	-12%	2%	0%	8%	3%	3%	-8%	1%	1%
Incidence in 2000 (%) **	1.4	0.4	0.6	1.4	1.8	1.3	1.9	1.1	0.7	1.1

*: SeeTable 6 for definitions.

**: This reads as follows: "Of all Canadian-born couples with men aged 25 to 54, what percentage were in a given age, education and tertile category in 2000?"
EF: economic families. See text for definitions. Shaded areas indicate cases where the *difference* between average earnings (income) in 2000 and those in 1980 is statistically significant at the 5% level.

Table 10: Average earnings growth and income growth, by age of men and education level of partners, 1980-2000 (Canadian-born couples in the top tertile)

	Education level of partners*									
	1	2	3	4	5	6	7	8	9	10
Men aged 25 to 34										
1. Male earnings	-16%	-14%	-13%	-6%	-1%	7%	1%	8%	8%	19%
2. Couples' earnings	-4%	-8%	-6%	1%	5%	10%	8%	14%	7%	21%
3. EF earnings	-2%	-5%	-4%	4%	7%	11%	8%	15%	7%	21%
4. EF earnings (size-adjusted)	-3%	-8%	-8%	0%	6%	10%	9%	18%	7%	23%
5. EF market income	-1%	-5%	-5%	3%	8%	10%	8%	14%	6%	19%
6. EF total income	0%	-3%	-4%	3%	7%	10%	8%	14%	5%	19%
7. EF total income (size-adjusted)	-1%	-6%	-9%	0%	6%	9%	8%	17%	6%	21%
Incidence in 2000 (%) **	0.6	0.2	0.4	0.8	1.0	1.2	1.7	0.5	0.9	1.0
Men aged 35 to 44										
1. Male earnings	-2%	-17%	-12%	1%	-1%	-9%	3%	10%	6%	31%
2. Couples' earnings	11%	-5%	2%	13%	11%	5%	13%	20%	13%	34%
3. EF earnings	9%	-5%	1%	14%	10%	4%	12%	19%	13%	34%
4. EF earnings (size-adjusted)	15%	0%	4%	14%	13%	8%	15%	21%	10%	32%
5. EF market income	9%	-5%	0%	13%	10%	3%	10%	17%	11%	36%
6. EF total income	8%	-6%	0%	12%	9%	2%	9%	16%	10%	35%
7. EF total income (size-adjusted)	15%	0%	3%	13%	11%	6%	12%	18%	7%	34%
Incidence in 2000 (%) **	1.2	0.4	0.8	1.4	1.9	1 8	2.7	1.0	1.1	1.3
Men aged 45-54										
1. Male earnings	-4%	-21%	-13%	-9%	7%	-5%	-1%	-2%	-13%	7%
2. Couples' earnings	9%	-9%	0%	7%	21%	9%	13%	10%	-1%	23%
3. EF earnings	3%	-13%	-3%	3%	15%	6%	9%	8%	-2%	21%
4. EF earnings (size-adjusted)	14%	-5%	4%	9%	22%	12%	15%	18%	-1%	26%
5. EF market income	1%	-14%	-7%	0%	12%	1%	6%	3%	-11%	18%
6. EF total income	1%	-14%	-8%	-1%	11%	1%	6%	2%	-12%	17%
7. EF total income (size-adjusted)	11%	-6%	0%	5%	17%	6%	12%	12%	-10%	22%
Incidence in 2000 (%) **	1.5	0.4	0.7	1.4	1.9	1.3	2.0	1.1	0.8	1.1

*: SeeTable 6 for definitions.

**: This reads as follows: "Of all Canadian-born couples with men aged 25 to 54, what percentage were in a given age, education and tertile category in 2000?"
EF: economic families. See text for definitions. Shaded areas indicate cases where the *difference* between average earnings (income) in 2000 and those in 1980 is statistically significant at the 5% level.

Table 11: Average earnings growth and income growth, by age of men and education level of partners, 1980-2000 (Recent immigrant couples)

	Education level of partners*			
	A	B	C	All
Men aged 25 to 34				
1. Male earnings	-37%	-33%	-17%	-16%
2. Couples' earnings	-34%	-22%	-13%	-9%
3. EF earnings	-25%	-14%	-12%	-7%
4. EF earnings (size-adjusted)	-26%	-14%	-10%	-3%
5. EF market income	-22%	-13%	-12%	-5%
6. EF total income	-12%	-7%	-9%	-1%
7. EF total income (size-adjusted)	-15%	-8%	-7%	1%
Men aged 35 to 44				
1. Male earnings	-46%	-39%	-35%	-30%
2. Couples' earnings	-41%	-34%	-29%	-24%
3. EF earnings	-40%	-33%	-28%	-24%
4. EF earnings (size-adjusted)	-37%	-30%	-27%	-21%
5. EF market income	-37%	-30%	-29%	-23%
6. EF total income	-27%	-23%	-26%	-18%
7. EF total income (size-adjusted)	-24%	-22%	-25%	-15%
Men aged 45-54				
1. Male earnings	-41%	-34%	-53%	-37%
2. Couples' earnings	-35%	-29%	-41%	-27%
3. EF earnings	-39%	-26%	-38%	-30%
4. EF earnings (size-adjusted)	-36%	-28%	-33%	-27%
5. EF market income	-38%	-26%	-38%	-29%
6. EF total income	-31%	-21%	-34%	-24%
7. EF total income (size-adjusted)	-28%	-23%	-29%	-20%

*: The educational level of partners is defined as follows :
A: couples with high school or less (#1 to #4)
B: couples with at most a post-secondary education (#5 to #7)
C: couples with at least one university graduate (#8 to #10)

EF: economic families. See text for definitions. Shaded areas indicate cases where the *difference* between average earnings (income) in 2000 and those in 1980 is statistically significant at the 5% level.

Table 12: Average and median annual earnings (2001 k $) of couples, 1980-2000

	All	Canadian-born Couples	Recent Immigrant Couples	Other Couples
I. Actual values				
Average				
1980	58,800	58,000	54,300	61,600
1985	58,400	57,300	45,000	62,700
1990	63,500	62,900	44,400	67,100
1995	61,200	62,000	31,500	62,800
2000	69,800	71,200	43,000	68,600
% change 1980-2000	19%	23%	-21%	11%
Median				
1980	55,100	54,100	51,100	57,700
1985	54,300	53,900	38,800	57,400
1990	58,400	58,000	38,700	61,100
1995	55,900	57,000	26,300	55,900
2000	61,500	63,000	35,400	58,800
% change 1980-2000	12%	16%	-31%	2%
II. Hypothetical values for 1985, 1990, 1995 and 2000 based on 1980 age-education composition				
Average				
1980	58,800	58,000	54,300	61,600
1985	56,400	55,400	44,700	59,800
1990	58,800	58,000	44,000	62,100
1995	53,900	54,100	30,600	55,600
2000	59,300	60,000	37,500	59,600
% change 1980-2000	1%	3%	-31%	-3%
Median				
1980	55,100	54,100	51,100	57,700
1985	52,800	52,300	39,600	55,600
1990	54,700	53,700	38,700	57,300
1995	50,000	50,300	25,700	50,300
2000	53,300	54,400	31,400	52,300
% change 1980-2000	-3%	1%	-39%	-9%

Source: Authors' calculations from Censuses of 1981, 1986, 1991, 1996 and 2001.

Table 13: Percentage distribution of couples' annual earnings, 1980-2000

	(1)	(2)	(3)
All couples	**1980**	**2000**	**2000 | P80***
<= 25,000	13.5	14.8	19.2
25,000 - 50,000	29.3	22.3	26.3
50,000 - 75,000	32.6	26.9	27.3
75,000 - 100,000	15.8	17.9	15.4
> 100,000	8.7	18.0	11.9
Canadian-born couples			
<= 25,000	14.1	12.8	18.1
25,000 - 50,000	29.9	22.0	26.3
50,000 - 75,000	32.3	28.0	28.0
75,000 - 100,000	15.4	18.8	15.6
> 100,000	8.4	18.4	11.9
Recent immigrant couples			
<= 25,000	14.7	37.2	40.5
25,000 - 50,000	33.3	29.2	31.3
50,000 - 75,000	32.4	18.3	17.6
75,000 - 100,000	13.9	8.4	6.3
> 100,000	5.7	6.9	4.2
Other couples			
<= 25,000	11.7	18.2	21.1
25,000 - 50,000	27.3	22.4	25.5
50,000 - 75,000	33.8	24.8	25.6
75,000 - 100,000	17.3	16.4	15.1
> 100,000	10.0	18.2	12.6

* Percentage distribution in 2000 assuming the age-education composition of 1980 and the employent income of 2000.

Source: Authors' calculations from the Censuses of 1981 and 2001.

Table 14: Percentage of couples with a significant second earner*, by couples' earnings, 1980-2000

	1980	2000
All couples		
<= 25,000	7.5	10.2
25,000 - 50,000	9.0	17.0
50,000 - 75,000	16.2	27.8
75,000 - 100,000	26.4	34.3
> 100,000	26.0	34.5
Total	15.7	25.9
Canadian-born couples		
<= 25,000	7.2	10.6
25,000 - 50,000	8.1	16.4
50,000 - 75,000	15.7	27.6
75,000 - 100,000	27.3	34.5
> 100,000	26.0	34.9
Total	15.2	26.3
Recent immigrant couples		
<= 25,000	10.9	7.8
25,000 - 50,000	15.4	20.8
50,000 - 75,000	18.4	25.2
75,000 - 100,000	14.4	23.6
> 100,000	15.2	31.4
Total	15.7	19.0
Other couples		
<= 25,000	7.8	10.1
25,000 - 50,000	11.2	18.1
50,000 - 75,000	17.5	28.8
75,000 - 100,000	24.9	34.5
> 100,000	26.5	33.5
Total	17.1	25.6

*: Receiving between 40% and 49.9% of a couple's annual earnings.

Source: Censuses of 1981 and 2001.

Table 15: Percentage of couples with a significant second earner*, by education, 1980-2000

	1980	2000
All couples		
With high school or less	13.1	22.7
With at most post-secondary education	16.1	25.5
With at least one university graduate	20.5	29.6
Canadian-born couples		
With high school or less	12.2	22.4
With at most post-secondary education	16.0	25.4
With at least one university graduate	20.8	32.0
Recent immigrant couples		
With high school or less	18.1	20.8
With at most post-secondary education	13.6	20.3
With at least one university graduate	16.7	18.0
Other couples		
With high school or less	15.8	23.7
With at most post-secondary education	16.7	26.2
With at least one university graduate	20.3	26.6

*: Receiving between 40% and 49.9% of a couple's annual earnings.

Source: Censuses of 1981 and 2001.

Table 16: Canadian-born couples with a significant second earner* and high earnings, by education, 1980-2000

Education level of partners**	% of couples : (a) with a significant second earner	(b) earning more than $100,000	(c) with both a and b
I. 1980			
1	10.4	2.5	0.3
2	9.1	4.3	0.4
3	18.3	3.3	0.7
4	16.2	5.1	0.8
5	11.0	4.3	0.6
6	21.4	6.5	1.6
7	18.6	7.4	2.2
8	11.7	21.2	3.0
9	36.8	22.9	12.9
10	29.0	32.0	14.6
II. 2000			
1	18.3	5.3	1.3
2	17.2	5.4	1.5
3	26.2	6.7	2.4
4	25.5	11.8	3.6
5	18.9	11.8	2.8
6	29.5	11.7	3.9
7	27.7	16.6	5.6
8	20.7	37.0	8.6
9	38.5	29.8	14.7
10	35.3	51.3	21.5

*: Receiving between 40% and 49.9% of a couple's annual earnings.

** The numbers in this table refer to opposite-sex couples in married or common-law relationships. The education level of partners is defined as follows :

1. Both man and woman without high school diploma
2. Man with high school diploma, woman without high school diploma
3. Woman with high school diploma, man without high school diploma
4. Both man and woman with high school diploma
5. Man with post-secondary education below bachelor's level, woman with high school diploma or less
6. Woman with post-secondary education below bachelor's level, man with high school diploma or less
7. Both man and woman with post-secondary education below bachelor's level
8. Man with a university degree, wife with post-secondary education below bachelor's level or less
9. Woman with a university degree, man with post-secondary education below bachelor's level or less,
10. Both man and woman with a university degree

Source: Censuses 1981 and 2001.

Table 17: Results of bivariate probit model, 1980-2000

	Educational categories*		
	4	7	10
Probability (%) of having a significant second earner *and* of earning more than $100,000, couples with men aged 35 to 44			
1980	1.5	2.2	11.5
2000	3.8	6.1	20.3

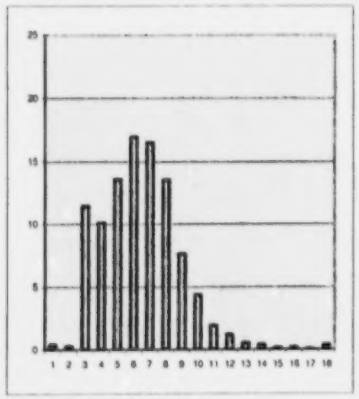
* The educational categories are defined as follows:
4. Both man and woman with high school diploma
7. Both man and woman with post-secondary education below bachelor's level
10. Both man and woman with a university degree

Source: Authors' calculations from Censuses of 1981 and 2001.

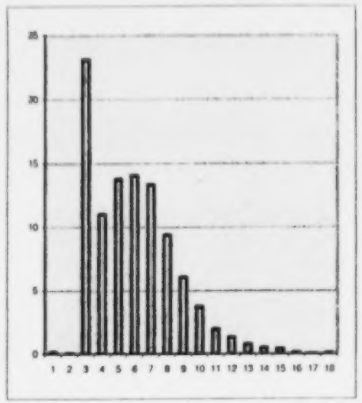
Figure 1: Percentage distribution of couples' earnings, 1980-2000, Canadian-born couples with men aged 25 to 34

Both man and woman with no high school diploma (#1)

1980

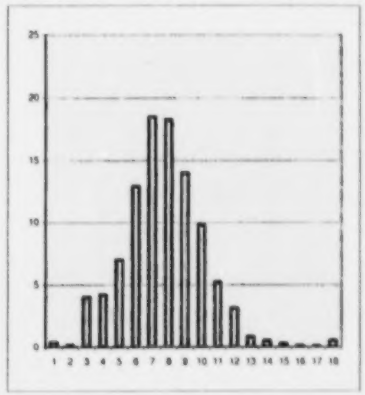


2000

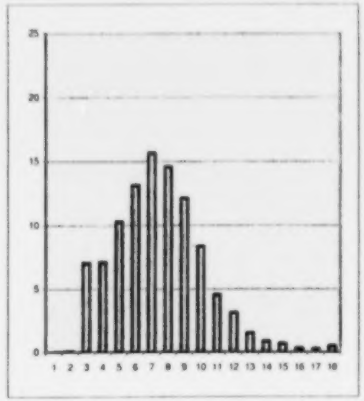


Both man and woman with a high school diploma (#4)

1980

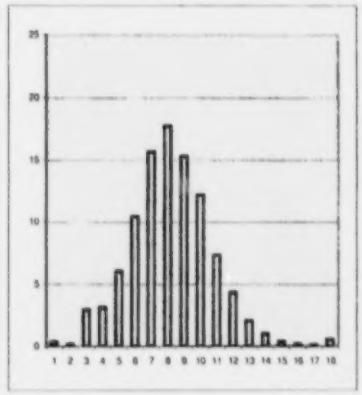


2000

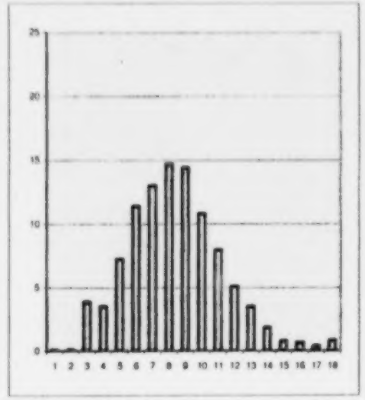


Both man and woman with post-secondary education (#7)

1980

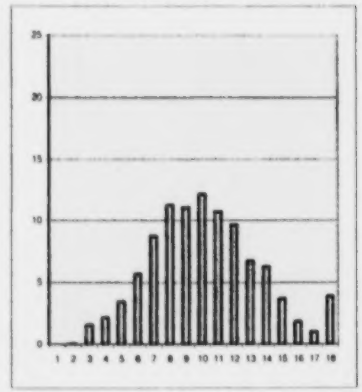


2000

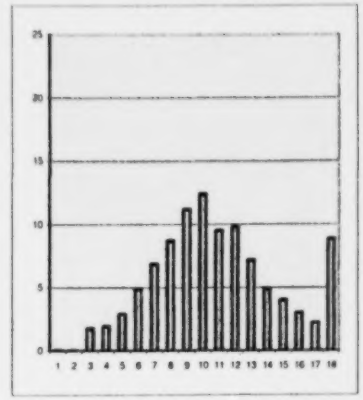


Both man and woman with a university degree (#10)

1980

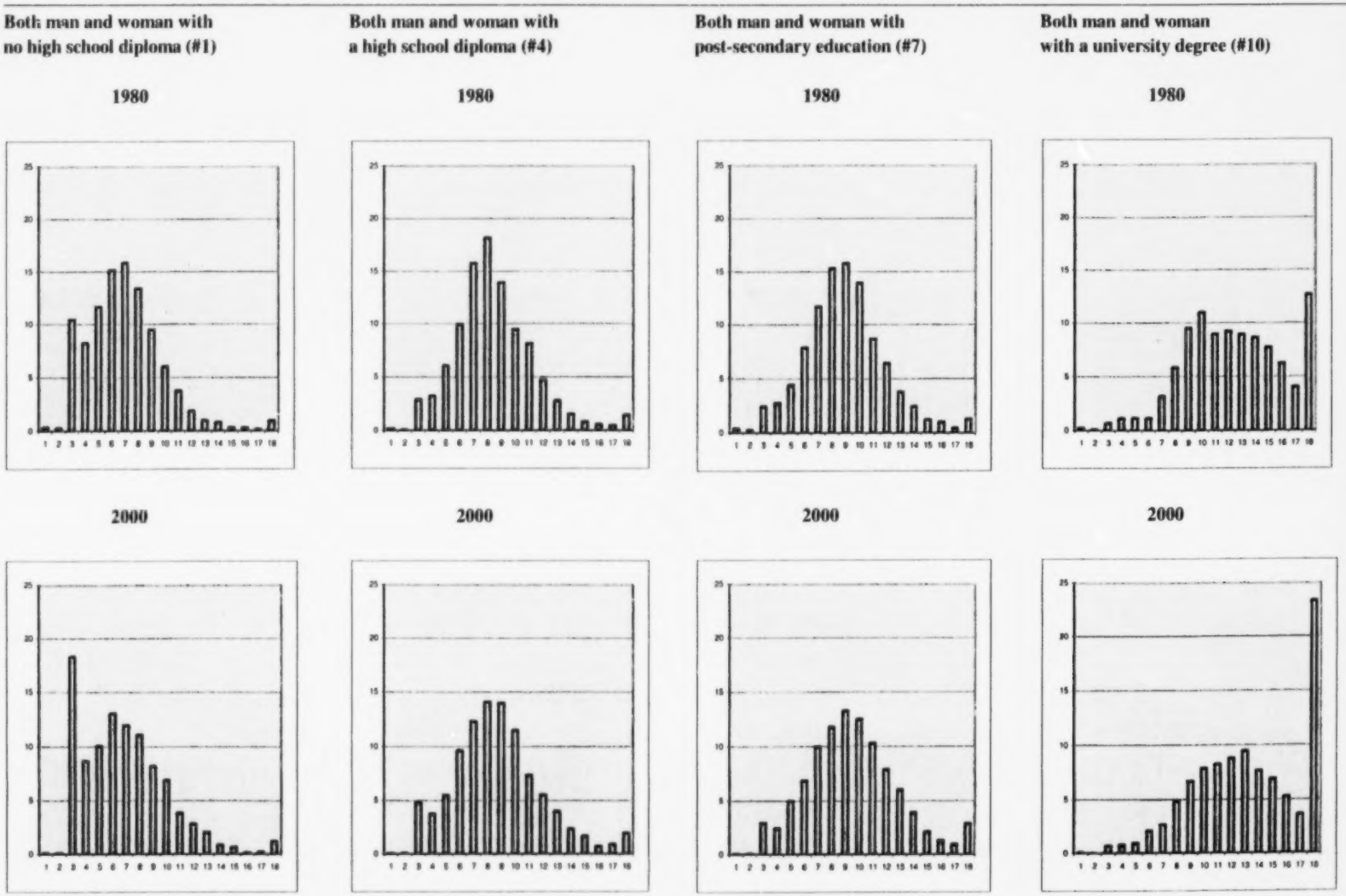


2000



Source: Censuses of 1981 and 2001.

Figure 2: Percentage distribution of couples' earnings, 1980-2000, Canadian-born couples with men aged 35 to 44

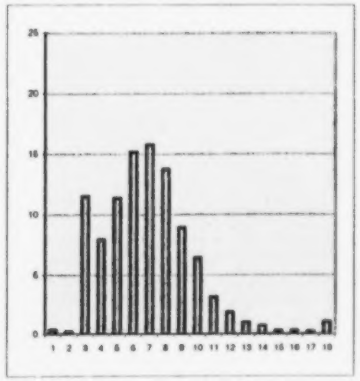


Source: Censuses of 1981 and 2001.

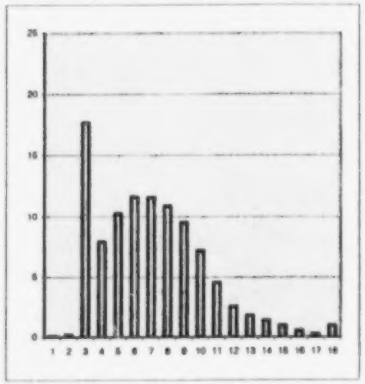
Figure 3: Percentage distribution of couples' earnings, 1980-2000, Canadian-born couples with men aged 45 to 54

Both man and woman with no high school diploma (#1)

1980

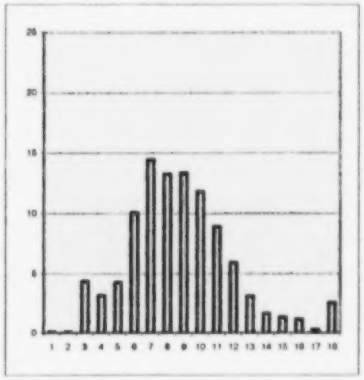


2000

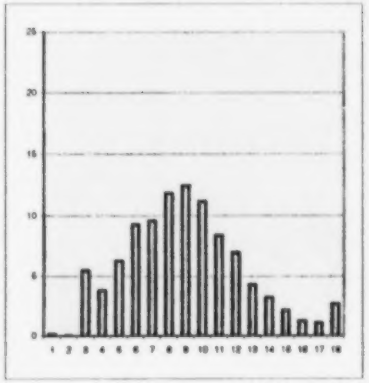


Both man and woman with a high school diploma (#4)

1980

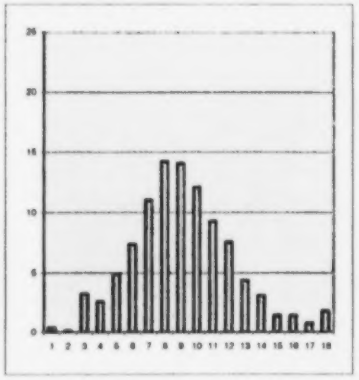


2000

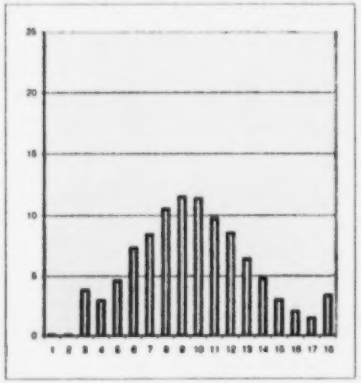


Both man and woman with post-secondary education (#7)

1980

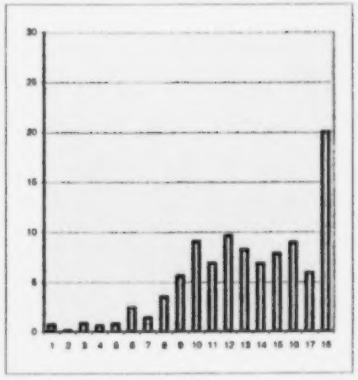


2000

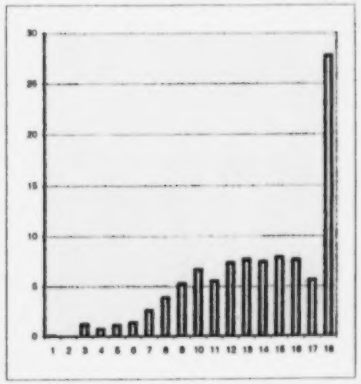


Both man and woman with a university degree (#10)

1980



2000



Source: Censuses of 1981 and 2001.

Figure 4.1: Percentage distribution of earnings of couples, 1980-2000

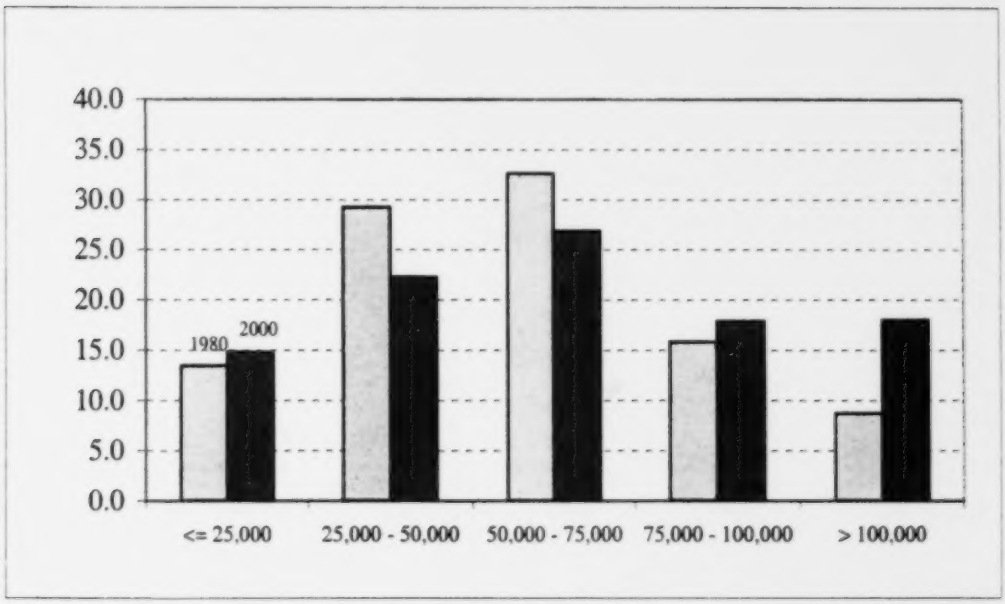
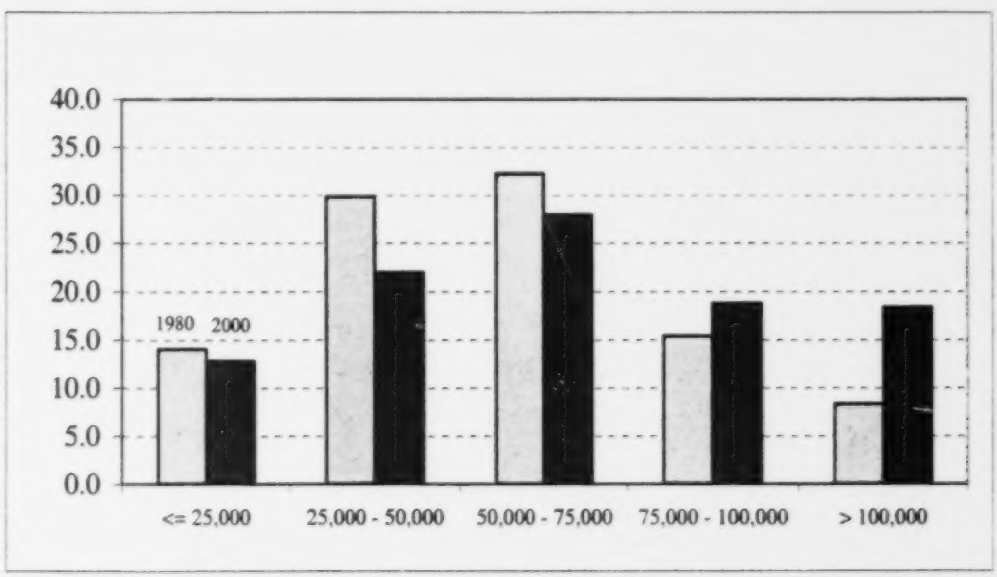


Figure 4.2: Percentage distribution of earnings of Canadian-born couples, 1980-2000



Source: Censuses of 1981 and 2001.

Figure 4.3: Percentage distribution of earnings of recent immigrant couples, 1980-2000

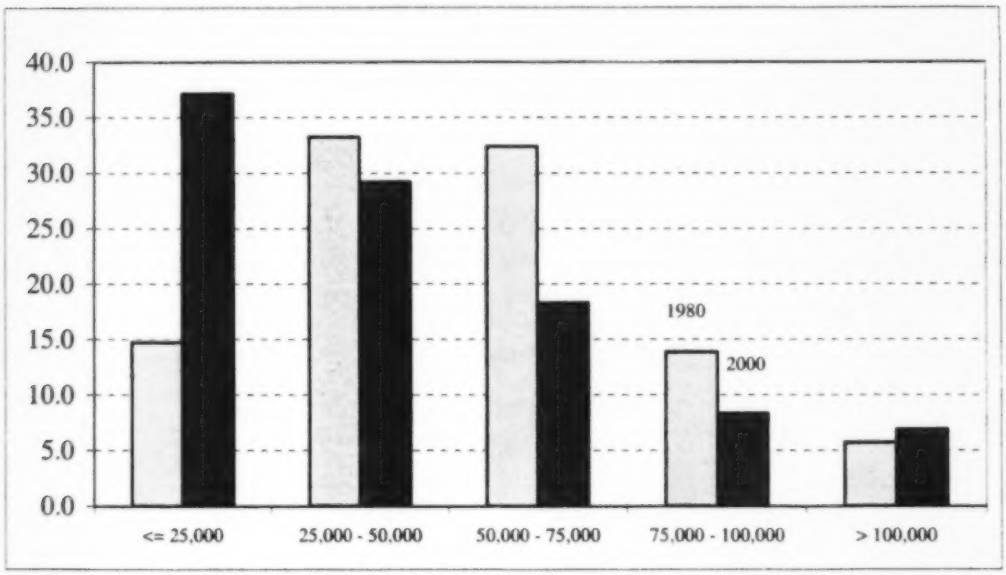
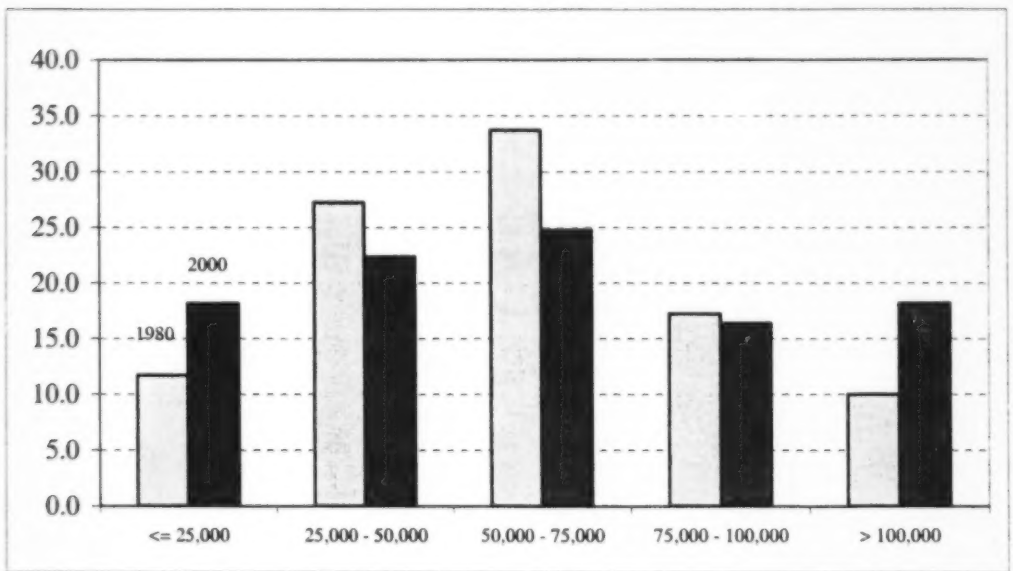
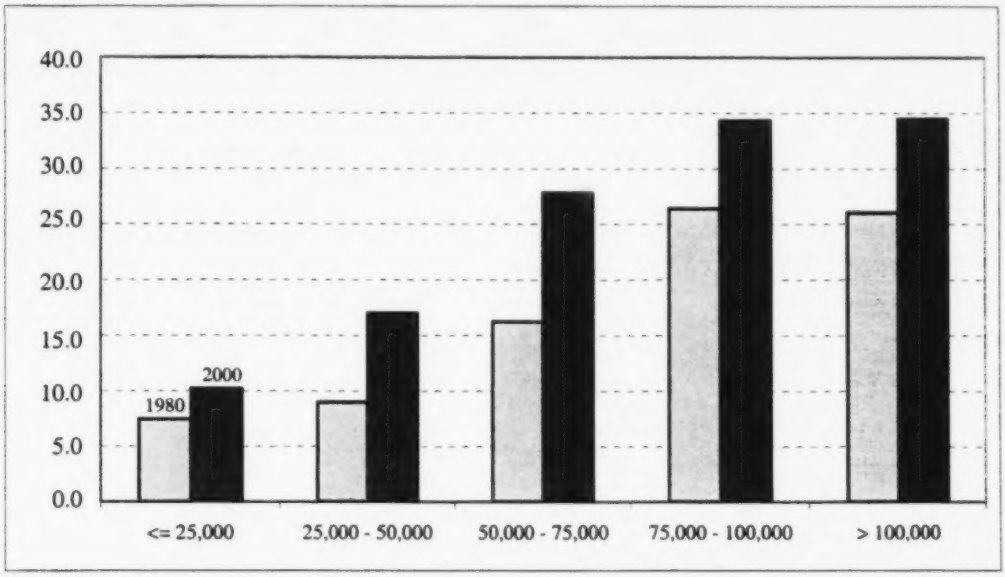


Figure 4.4: Percentage distribution of earnings of other couples, 1980-2000



Source: Censuses of 1981 and 2001.

Figure 5: Percentage of couples with a significant second earner*, by earnings of couples, 1980-2000



* Second earner receiving at least 40% of couple's earnings.
Source: Censuses of 1981 and 2001.

Appendix Table 1: Average and median annual earnings (2001 k $) of men aged 25 to 54, Canadian-born couples, Canada, 1980-2000*

	All couples	Canadian-Born Couples	Recent Immigrant Couples	Other Couples
Average				
1980	45,600	45,300	41,400	46,700
1985	43,100	42,500	33,300	45,700
1990	44,300	44,000	30,600	46,300
1995	41,500	42,100	21,900	42,100
2000	46,500	47,700	30,000	45,200
% change 1980-2000	2%	5%	-28%	-3%
Median				
1980	43,000	42,700	37,800	44,300
1985	40,400	40,400	27,000	41,900
1990	39,900	39,900	25,400	41,300
1995	37,700	39,100	16,800	36,300
2000	40,400	41,000	23,600	37,100
% change 1980-2000	-6%	-4%	-38%	-16%

* The numbers in this table include men with no earnings.

Source: Censuses 1981, 1986, 1991, 1996 and 2001.

Appendix Table 2: Average weekly earnings of men and women working mainly full-time Canadian-born couples (with men aged 25 to 54), by age of men and education level of partners, Canada, 1980 and 2000

	Education level of partners*									
	1	2	3	4	5	6	7	8	9	10
Men aged 25-34										
1980 Men	838	868	840	873	921	847	921	1,154	888	1,148
Women	473	469	515	546	519	576	608	641	813	865
2000 Men	661	704	703	764	829	846	856	1,106	904	1,218
Women	450	420	497	534	545	564	614	668	828	932
% change Men	**-21%**	**-19%**	**-16%**	**-13%**	**-10%**	0%	**-7%**	-4%	2%	6%
Women	-5%	-10%	-4%	-2%	5%	-2%	1%	**4%**	2%	**8%**
Men aged 35-44										
1980 Men	915	1,080	927	1,016	1,056	990	1,071	1,596	1,072	1,658
Women	473	505	545	567	518	630	638	756	1,042	1,090
2000 Men	879	848	863	968	1,018	919	1,045	1,605	1,108	1,828
Women	519	563	566	630	607	662	679	782	1,041	1,261
% change Men	-4%	**-22%**	**-7%**	-5%	**-4%**	**-7%**	-2%	1%	3%	**10%**
Women	**10%**	11%	4%	**11%**	**17%**	5%	**6%**	3%	0%	**16%**
Men aged 45-54										
1980 Men	913	1,093	944	1,168	1,063	1,004	1,110	1,890	1,291	1,946
Women	460	519	554	597	544	643	673	755	1,164	1,006
2000 Men	882	956	877	1,038	1,118	971	1,093	1,738	1,177	1,978
Women	516	524	594	637	609	717	712	789	1,091	1,307
% change Men	-3%	**-13%**	**-7%**	**-11%**	**5%**	-3%	-1%	**-8%**	-9%	2%
Women	**12%**	1%	7%	7%	**12%**	**11%**	**6%**	4%	-6%	**30%**

* The numbers in this table refer to opposite-sex couples in married or common-law relationships. The education level of partners is defined as follows:

1. Both man and woman without high school diploma
2. Man with high school diploma, woman without high school diploma
3. Woman with high school diploma, man without high school diploma
4. Both man and woman with high school diploma
5. Man with post-secondary education below bachelor's level, woman with high school diploma or less
6. Woman with post-secondary education below bachelor's level, man with high school diploma or less
7. Both man and woman with post-secondary education below bachelor's level
8. Man with a university degree, wife with post-secondary education below bachelor's level or less
9. Woman with a university degree, man with post-secondary education below bachelor's level or less,
10. Both man and woman with a university degree

Percentage changes are in bold whenever the *difference* between weekly earnings in 2000 and those in 1980 is statistically significant at the 5% level.

Source: Censuses of 1981 and 2001.

Appendix Table 3: Average annual earnings of Canadian-born couples (with men aged 25 to 54), by age of men and education level of partners, Canada, 1980 and 2000

	Education level of partners*									
	1	2	3	4	5	6	7	8	9	10
Men aged 25-34										
1980	39,500	47,200	48,100	52,500	51,400	53,300	57,400	70,300	67,800	79,200
2000	33,600	37,700	40,900	49,500	50,700	54,700	59,200	74,900	72,200	90,200
% change	**-15%**	**-20%**	**-15%**	**-6%**	-1%	3%	**3%**	**7%**	**6%**	**14%**
Men aged 35-44										
1980	45,200	57,400	53,700	60,100	58,100	61,300	65,300	91,300	84,400	107,000
2000	44,900	48,700	52,800	64,400	63,300	63,900	71,700	101,900	91,200	130,400
% change	0%	**-15%**	-2%	**7%**	**9%**	**4%**	**10%**	**12%**	**8%**	**22%**
Men aged 45-54										
1980	44,700	59,300	54,400	65,800	57,300	62,200	67,400	105,700	95,600	122,500
2000	45,400	52,100	53,800	67,900	66,500	66,200	74,300	107,800	94,900	141,300
% change	2%	**-12%**	-1%	3%	**16%**	**7%**	**10%**	2%	-1%	**15%**

* The numbers in this table refer to opposite-sex couples in married or common-law relationships. The education level of partners is defined as follows:

1. Both man and woman without high school diploma
2. Man with high school diploma, woman without high school diploma
3. Woman with high school diploma, man without high school diploma
4. Both man and woman with high school diploma
5. Man with post-secondary education below bachelor's level, woman with high school diploma or less
6. Woman with post-secondary education below bachelor's level, man with high school diploma or less
7. Both man and woman with post-secondary education below bachelor's level
8. Man with a university degree, wife with post-secondary education below bachelor's level or less
9. Woman with a university degree, man with post-secondary education below bachelor's level or less,
10. Both man and woman with a university degree

Percentage changes are in bold whenever the *difference* between annual earnings in 2000 and those in 1980 is statistically significant at the 5% level.

Source: Censuses 1981 and 2001.

Appendix Table 4: Average and median annual earnings of women, Canadian-born couples (with men aged 25 to 54), Canada, 1980-2000*

	All couples	Canadian-Born Couples	Recent Immigrant Couples	Other Couples
Average				
1980	13,300	12,700	12,900	14,900
1985	15,300	14,800	11,700	17,000
1990	19,200	18,900	13,800	20,800
1995	19,700	19,900	9,500	20,700
2000	23,200	23,600	13,000	23,400
% change 1980 -2000	75%	85%	1%	57%
Median				
1980	6,700	5,600	10,200	10,500
1985	9,900	9,300	7,800	12,700
1990	15,000	15,000	10,000	17,500
1995	15,400	15,600	3,200	16,200
2000	19,100	20,300	5,500	18,500
% change 1980 -2000	187%	265%	-46%	76%

* The numbers in this table include women with no earnings.

Source: Censuses 1981, 1986, 1991, 1996 and 2001.

Appendix Table 5: Average earnings and income, by age of men and education level of partners, 1980-2000 (Canadian-born couples)

	Education level of partners*									
	1	2	3	4	5	6	7	8	9	10
Men aged 25 to 34										
1980										
1. Male earnings	32,300	38,500	35,900	39,600	41,100	37,500	41,700	54,000	40,100	53,000
2. Couples' earnings	39,500	47,200	48,100	52,500	51,400	53,300	57,400	70,300	67,800	79,200
3. EF earnings	40,800	48,200	48,900	53,300	52,200	54,100	58,000	70,900	68,800	79,700
4. EF earnings (size-adjusted)	21,900	26,700	28,000	30,800	29,300	31,500	33,700	41,600	42,500	49,100
5. EF market income	41,400	48,900	49,900	54,400	53,200	55,300	59,200	73,500	71,400	83,400
6. EF total income	45,600	52,100	53,200	57,400	56,300	58,300	62,000	75,600	73,800	85,300
7. EF total income (size-adjusted)	24,300	28,800	30,300	33,000	31,500	33,800	35,900	44,300	45,500	52,400
2000										
1. Male earnings	23,900	27,900	27,200	33,600	36,600	35,500	38,500	52,100	41,700	55,600
2. Couples' earnings	33,600	37,700	40,900	49,500	50,700	54,700	59,200	74,900	72,200	90,200
3. EF earnings	36,100	39,800	42,900	52,300	52,700	56,500	60,500	76,600	73,500	91,400
4. EF earnings (size-adjusted)	19,100	21,600	23,900	29,800	29,900	32,800	35,900	46,300	45,600	57,400
5. EF market income	37,000	40,900	43,800	53,700	53,900	57,600	62,000	78,500	75,000	94,200
6. EF total income	44,500	47,300	49,600	57,900	58,500	62,000	65,700	81,100	77,900	96,300
7. EF total income (size-adjusted)	23,300	25,400	27,400	32,700	32,900	35,700	38,700	48,900	48,100	60,300

* See Table 6 for definitions.

Source: Censuses of 1981 and 2001.

Appendix Table 5: Average earnings and income, by age of men and education level of partners, 1980-2000 (Canadian-born couples)

	Education level of partners*									
	1	2	3	4	5	6	7	8	9	10
Men aged 35 to 44										
1980										
1. Male earnings	37,000	48,100	41,300	47,900	48,300	45,800	50,000	78,700	51,100	80,500
2. Couples' earnings	45,200	57,400	53,700	60,100	58,100	61,300	65,300	91,300	84,400	107,000
3. EF earnings	48,600	60,300	56,700	62,000	60,900	63,600	67,200	92,400	85,500	107,700
4. EF earnings (size-adjusted)	24,100	30,100	29,000	32,300	30,800	32,500	34,400	46,800	46,600	56,600
5. EF market income	49,800	61,800	58,700	63,100	63,000	66,300	69,900	97,400	90,700	113,500
6. EF total income	54,500	65,200	62,200	66,100	66,500	69,500	73,000	99,900	93,500	115,800
7. EF total income (size-adjusted)	26,900	32,500	31,700	34,400	33,500	35,400	37,200	50,600	50,800	60,600
2000										
1. Male earnings	31,900	35,100	34,100	43,500	45,800	40,300	48,100	76,900	51,400	88,200
2. Couples' earnings	44,900	48,700	52,800	64,400	63,300	63,900	71,700	101,900	91,200	130,400
3. EF earnings	47,500	51,400	55,500	66,500	65,500	65,600	73,100	103,000	92,000	130,800
4. EF earnings (size-adjusted)	25,200	27,300	29,500	35,200	34,500	35,000	38,800	53,900	50,100	69,300
5. EF market income	49,100	53,000	57,300	68,500	67,500	67,500	75,000	106,500	95,200	136,600
6. EF total income	55,800	58,600	62,800	72,700	71,700	71,800	78,700	108,900	98,000	138,400
7. EF total income (size-adjusted)	29,400	30,900	33,200	38,300	37,600	38,200	41,600	57,000	53,200	73,200

* See Table 6 for definitions.

Source: Censuses of 1981 and 2001.

Appendix Table 5: Average earnings and income, by age of men and education level of partners, 1980-2000 (Canadian-born couples) (completed)

	Education level of partners*									
	1	2	3	4	5	6	7	8	9	10
Men aged 45 to 54										
1980										
1. Male earnings	36,700	50,500	41,800	53,800	47,700	45,400	51,800	93,000	59,500	98,100
2. Couples' earnings	44,700	59,300	54,400	65,800	57,300	62,200	67,400	105,700	95,600	122,500
3. EF earnings	55,700	71,200	65,300	77,500	68,800	71,800	76,700	114,200	102,600	129,600
4. EF earnings (size-adjusted)	29,300	37,500	34,100	40,800	36,300	38,000	40,800	57,700	56,200	65,600
5. EF market income	58,900	76,100	70,300	84,000	73,900	78,700	82,900	126,000	115,300	144,100
6. EF total income	63,500	79,300	73,900	87,100	77,200	81,900	85,700	128,300	117,800	146,100
7. EF total income (size-adjusted)	33,300	41,800	38,500	45,800	40,800	43,300	45,600	64,800	64,300	73,800
2000										
1. Male earnings	32,000	38,100	34,400	46,000	48,000	40,800	48,500	81,200	51,900	94,000
2. Couples' earnings	45,400	52,100	53,800	67,900	66,500	66,200	74,300	107,800	94,900	141,300
3. EF earnings	51,700	59,000	60,600	75,100	74,000	72,800	80,600	113,700	99,800	146,000
4. EF earnings (size-adjusted)	30,400	33,800	34,600	42,500	42,000	41,200	45,600	62,600	55,800	77,800
5. EF market income	54,300	62,400	63,200	80,000	77,600	76,700	84,300	120,800	106,000	155,500
6. EF total income	60,000	66,800	68,000	83,300	81,500	80,500	87,600	122,900	108,600	157,000
7. EF total income (size-adjusted)	35,200	38,400	38,800	47,200	46,300	45,500	49,600	67,700	60,600	83,700

* See Table 6 for definitions.

Source: Censuses of 1981 and 2001.

Appendix Table 6: Average weeks worked by men and women, by age of men and education level of partners, 1980-2000 (Canadian-born couples)

	Education level of partners*									
	1	2	3	4	5	6	7	8	9	10
Men aged 25-34										
1980 Couples	58.3	66.2	69.9	72.9	68.3	75.3	75.5	76.4	82.9	81.3
Men	40.6	45.4	43.8	46.3	45.8	45.2	46.6	48.0	45.8	47.4
Women	17.7	20.8	26.1	26.5	22.6	30.1	28.8	28.4	37.1	33.9
2000 Couples	61.8	68.0	71.9	79.5	77.0	83.2	85.4	85.1	88.6	87.9
Men	37.2	41.2	40.2	45.3	45.0	45.0	46.6	47.4	47.0	47.1
Women	24.6	26.8	31.7	34.2	32.0	38.2	38.8	37.7	41.6	40.8
% change Couples	6%	3%	3%	9%	13%	10%	13%	11%	7%	8%
Men	-8%	-9%	-8%	-2%	-2%	-1%	0%	-1%	3%	-1%
Women	39%	29%	21%	29%	42%	27%	35%	33%	12%	20%
Men aged 35-44										
1980 Couples	61.5	68.0	71.1	72.2	68.0	75.9	76.1	72.0	83.8	79.6
Men	41.7	47.2	45.3	47.6	46.4	46.9	47.9	49.7	47.8	49.5
Women	19.7	20.8	25.8	24.6	21.6	29.0	28.2	22.3	36.0	30.2
2000 Couples	67.1	73.9	79.0	84.2	80.3	85.9	86.9	86.0	89.5	88.8
Men	38.5	43.1	42.4	46.6	46.4	45.6	47.4	49.0	47.2	49.1
Women	28.6	30.7	36.7	37.6	33.9	40.3	39.5	37.0	42.3	39.7
% change Couples	9%	9%	11%	17%	18%	13%	14%	19%	7%	12%
Men	-8%	-9%	-6%	-2%	0%	-3%	-1%	-1%	-1%	-1%
Women	45%	48%	42%	53%	57%	39%	40%	66%	17%	32%
Men aged 45-54										
1980 Couples	61.1	66.6	71.0	71.8	67.8	76.4	76.7	71.0	83.7	78.7
Men	41.6	46.8	44.7	47.8	46.2	46.2	47.5	49.6	46.4	50.1
Women	19.5	19.8	26.4	24.0	21.6	30.1	29.2	21.4	37.3	28.6
2000 Couples	66.7	73.0	77.8	83.1	79.6	84.5	86.2	85.7	89.0	90.2
Men	38.1	42.3	41.3	45.5	45.0	43.8	45.9	48.0	45.8	48.1
Women	28.6	30.6	36.5	37.7	34.6	40.7	40.3	37.7	43.2	42.1
% change Couples	9%	10%	10%	16%	17%	11%	12%	21%	6%	15%
Men	-8%	-10%	-8%	-5%	-2%	-5%	-3%	-3%	-1%	-4%
Women	47%	55%	39%	57%	60%	35%	38%	76%	16%	47%

* The numbers in this table refer to opposite-sex couples in married or common-law relationships. The education level of partners is defined as follows:

1. Both man and woman without high school diploma
2. Man with high school diploma, woman without high school diploma
3. Woman with high school diploma, man without high school diploma
4. Both man and woman with high school diploma
5. Man with post-secondary education below bachelor's level, woman with high school diploma or less
6. Woman with post-secondary education below bachelor's level, man with high school diploma or less
7. Both man and woman with post-secondary education below bachelor's level
8. Man with a university degree, wife with post-secondary education below bachelor's level or less
9. Woman with a university degree, man with post-secondary education below bachelor's level or less,
10. Both man and woman with a university degree

The numbers in this table include men and women with no weeks worked.

Source: Censuses of 1981 and 2001.

Appendix Table 7: Proportion of employed men and women working mainly full-time, by age of men and education level of partners, 1980-2000 (Canadian-born couples)

		Education level of partners*									
		1	2	3	4	5	6	7	8	9	10
Men aged 25-34											
1980	Men	0.95	0.97	0.96	0.97	0.97	0.97	0.97	0.97	0.97	0.95
	Women	0.70	0.71	0.74	0.75	0.72	0.72	0.71	0.71	0.79	0.75
2000	Men	0.93	0.94	0.95	0.96	0.96	0.96	0.96	0.96	0.96	0.95
	Women	0.69	0.66	0.71	0.73	0.69	0.75	0.76	0.75	0.82	0.82
% change	Men	-2%	-3%	0%	-1%	-1%	-1%	-1%	-1%	0%	0%
	Women	-2%	-7%	-4%	-2%	-4%	4%	6%	5%	3%	9%
Men aged 35-44											
1980	Men	0.95	0.97	0.97	0.98	0.97	0.97	0.98	0.99	0.98	0.98
	Women	0.65	0.62	0.70	0.66	0.62	0.63	0.59	0.48	0.74	0.60
2000	Men	0.95	0.96	0.96	0.97	0.97	0.97	0.98	0.98	0.97	0.97
	Women	0.71	0.70	0.76	0.72	0.70	0.74	0.72	0.65	0.79	0.71
% change	Men	0%	-1%	-1%	-1%	0%	0%	0%	-1%	-1%	-1%
	Women	10%	13%	10%	9%	12%	17%	21%	34%	6%	19%
Men aged 45-54											
1980	Men	0.94	0.97	0.95	0.97	0.96	0.96	0.97	0.98	0.97	0.98
	Women	0.64	0.60	0.67	0.62	0.59	0.65	0.60	0.49	0.77	0.57
2000	Men	0.94	0.94	0.95	0.96	0.96	0.96	0.96	0.97	0.95	0.97
	Women	0.74	0.72	0.77	0.77	0.72	0.75	0.73	0.68	0.82	0.76
% change	Men	0%	-2%	0%	-1%	0%	0%	-1%	-1%	-2%	-1%
	Women	16%	20%	14%	24%	22%	16%	23%	37%	6%	32%

* The numbers in this table refer to opposite-sex couples in married or common-law relationships. The education level of partners is defined as follows:

1. Both man and woman without high school diploma
2. Man with high school diploma, woman without high school diploma
3. Woman with high school diploma, man without high school diploma
4. Both man and woman with high school diploma
5. Man with post-secondary education below bachelor's level, woman with high school diploma or less
6. Woman with post-secondary education below bachelor's level, man with high school diploma or less
7. Both man and woman with post-secondary education below bachelor's level
8. Man with a university degree, wife with post-secondary education below bachelor's level or less
9. Woman with a university degree, man with post-secondary education below bachelor's level or less,
10. Both man and woman with a university degree

The numbers in this table *exclude* men and women with no weeks worked during the reference year.

Source: Censuses 1981 and 2001.

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